

## AN ABSTRACT OF THE THESIS OF

Kensuke Sumii for the degree of Masters of Arts in Anthropology presented on December 9, 1997. Title: The Body of A Patient and Rational Treatment in The Managed Care Era.

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This study aims to identify conceptions of the body, as well as "rational" treatment among primary care practitioners (PCPs) and emergency medicine practitioners (EMPs) dealing with managed care plans. I conducted ethnographic study throughout 1996, and interviewed six PCPs and four EMPs. In the course of my interviews, I discovered that EMPs' and PCPs' perceived meaning and power in regards to treatment of their patients has been increasingly resituated by the power of scientific discourse as utilized by technocrats (such as consumer, provider, and insurance organizations who formulate managed care plans).

Technocrats have developed scientific measurements to monitor physicians' performances, quantifiably or scientifically. Technocrats conceptualize *ideal treatment* as a cost effective care. They guide PCPs to supervise *ideal treatment* of the managed care delivery networks, providing care without referring patients to specialists and administrating to hospitals. Consequently, PCPs' power to pursue the newly conceptualized *ideal treatment* influences other arenas of specialty, such as EMPs. On the other hand, EMPs develop *preferred treatment* which is formulated through their medical school education and clinical experiences. The *preferred treatment* is associated with time

because EMPs have to treat acute conditions of their patients within a limited amount of time. However, EMPs sometimes cannot complete their *preferred treatment* because they have to send their patient back to the patients' contracted PCPs in order to save health care expenditure.

Technocrats implemented the engineering concept of quality control, and the concept is incorporated into the principle of managed care plans, and preventive medicine. As a result, the managed care plan networks become like production lines of large manufacturing factories, and PCPs work as laborers to maintain the bodies of enrollees in healthy conditions.

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**The Body of A Patient and Rational Treatment in The Managed Care Era**

by

**Kensuke Sumii**

**A THESIS**

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Dean of Graduate School

I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

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Kensuke Sumii, Author

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## **LIST OF MANAGED CARE PLANS**

### **Health Maintenance Organizations (HMOs)**

- **A staff-model HMO**
  - : own staff physicians. (e.g.: Kaiser)
- **Prepaid Group Practice (PGP) Model HMO**
  - : similar to a staff model & exclusively contracted with large medical groups
- **Network Model HMO**
  - : similar to PGP but not relying 100% upon large medical groups
- **Independent Physician Association (IPA) Model HMO**
  - : contract with IPAs, solo & small group physicians
- **Mixed Model HMO**
  - : contract with multiple provider organizations or networks
- **Point of Service (POS) Model HMO**
  - : cover out-of network services usage (upon approval)

### **Preferred Provider Organizations (PPOs)**

- : similar to a fee for service system which cost is formulated by physicians
- : contract with a set of solo and small group physicians and hospitals
- : PCPs need approval for referring patients (from utilization committee of PPO)

親愛なる母久子と父襄太へ

# **The Body of A Patient and Rational Treatment In The Managed Care Era**

## **INTRODUCTION**

Tutelage is man's inability to make use of his understanding without direction from another. Self-incurred is this tutelage when its cause lies not in lack of reason but in lack of resolution and courage to use it without direction from another. Sapere aude! "Have courage to use your own reason!" – that is the motto of enlightenment.

– Rolf Wiggershaus, *Kant, "What is Enlightenment?" The Frankfurt School: Its History, Theories, and Political Significance*

SINCE THE 19TH century with the development of science and technology, specialists, such as surgeons, have had more power and prestige to treat patients than primary care practitioners (PCPs). Specialists' scientific knowledge was highly esteemed by their peers. People appreciated scientific knowledge, and supported the implementation of the knowledge into biomedical practice. The US government put funds into the development of scientific knowledge and biomedical treatment. Medical schools, hospitals, and other science institutions were established to support expanding biomedical science. This trend created a distinct characteristic of American biomedicine, and a large number of physicians have engaged in specialized medicine. In other words, biomedicine has overspecialized.

Consequently, health care expenditure was increased because physicians had power to establish their service fees, and specialists, in particular, charged a higher practice rate than PCPs. Insurance companies only reimbursed the health care cost to physicians according to their requests. In other words, the more services physicians provided, the more income they received. In the beginning of the 1970s, the US government, the largest

consumer of health care, intervened to control the increasing health care expenditure, and they reconstructed the entire delivery and financing system. Eventually, managed care plans were implemented. The system gave power to insurance organizations because they began to control health care delivery and financing, and monitor physician's quality of care as well as their service fees. American biomedicine has been rapidly transforming since the 1980s, and managed care plans have become the predominant health care system throughout the US. As a result, technocratic as well as scientific discourse shape predominant discourse in American biomedicine.

The transformation challenges us with questions about our meaningful life and humanity. Why does science have such power in the biomedical knowledge construction process? Why are patients' experience of illness detached from sociocultural and historical contexts? Is it possible to fulfill patients' emotional experience by scientific discourse? If so, what does the discourse express peoples' mind? Is illness thoroughly measured and treated by scientific knowledge? What is the aim of technocracy in American biomedicine? Why does illness have to be associated with political and economical issues? Why does cost have to be associated with addressing health issues? To answer these questions, I investigated physicians because they exercise their medical practice on a daily basis, and they are the professionals able to answer these questions. I especially chose to study primary care practitioners (PCPs) and emergency medicine practitioners (EMPs) because they are the first places where patients' experience of illness get addressed.

In this thesis, I would first like to illustrate how scientific epistemology embodies epistemology in American biomedicine. I will also elaborate upon the epistemological transformations in biomedicine: such as the expansion of scientific and technocratic conceptions of rationality in medical judgment and physician's perceptions of the patient's body. In the second chapter, I will give an overview of the managed care system, and demonstrate its formulation historically in the US. In the final chapter of my thesis, I will further elaborate upon the first two chapters of my thesis, the contemporary nature of biomedicine, by displaying the PCPs and EMPs' own experiences of managed care plans. The illustration will rely upon my ethnographic data analysis of PCPs and EMPs. The illustration will also demonstrate the discourse of PCPs in a technocracy, such as their experience of enhancing productivity in their daily practice, as well as the EMPs' autonomous power in their daily practice. In addition, I will present distinctive conceptions of rational treatment between EMPs and PCPs.

## **CHAPTER ONE**

### **Western Epistemology and Epistemology of Science, Technocracy, and Biomedicine**

**SCIENTIFIC DISCOURSE** impacts the foundation of technocracy and capitalism. Scientific knowledge has a dominant role in order to measure rationality in capitalist systems. Scientific concepts manipulate people's modality of thought. Even the meaning of social phenomena, based upon traditional knowledge, is recontextualized through scientific discourse. People exchange information, and even their emotions, in the language of scientific discourse. Scientific measurement is symbolically constituted in a discourse, and phenomena are symbolized by scientific characters, such as numbers and signs. Symbolic terms indicating scientific knowledge, such as validation, become dominant symbolic formulae in the discourse. In an industrialized society, nearly the entire population uses scientific concepts in daily communication, and construction of rational thought. Downey et al (1993) argues that the entire population gradually become potential scientists (Martin 1996:99). In such a line of thought, even artists are educated to understand the scientific mode of thought, or epistemology. The common interest in society is science, and science, therefore, becomes a uniform language. People can understand science based information and make scientific analysis of phenomena (Martin 1996:99).

Technocracy is increasingly being implemented in American biomedicine, and technocrats, such as managed care organizations, have adopted scientific discourse in biomedical discourse in order to enhance their productivity. The study of biomedicine has

been expanded in anthropology, and the nature of biomedicine has been theoretically debated throughout the last decade. Anthropologists argue that biomedicine is a product of Western epistemology, or epistemology of science (Lock and Sheper-Hughes 1990). On the other hand, recently, technocrats have implemented technocratic concepts, such as quality control, in a biomedical discourse, and the epistemology of biomedicine has been resituated in the discourse. The diverse arenas of physicians' practices are traditionally formulated by their intuitive knowledge rather than scientific knowledge, and constituted by one's own experience. Ancillary to the development of science, science-based materialism has reshaped physicians' epistemologies; the human body is perceived as a machine. Medicine is aimed to replace malfunctioning parts of the human body. On the other hand, technocrats formulate rational treatment to enhance productivity in a biomedical discourse, and they monitor physicians' performance with scientific measurement. Technocrats put pressure on physicians to use scientific discourse to exchange explicit and quantifiable form of knowledge. Proof or reality is used to formulate power in a scientific discourse. Technocrats demand that physicians produce quantifiable data to store in computer systems. In this way, legitimacy is developed in a biomedical practice.

In this chapter, I will first argue that epistemology of biomedicine is a Western product, and second, I will define the intuitive and scientific knowledge which is formulated in physicians' practice. In the third section, I will depict how technocrats have implemented scientific discourse in their biomedical discourse, and how power is situated in the discourse. In the final section, I will argue that individual physicians' identities have



been diminished in their clinical decision making by the impact of technocracy in biomedicine.

### **Epistemology of Biomedicine**

The enlightenment of science influenced the biomedical concept, such as disease classification. Illness is detached from religion, and it is not considered a misfortune or a form of punishment. Foucault (1975:196) argues that the development of medicine culminated in the thought that "disease broke away from the metaphysics of evil to which it had been related for centuries."

Deborah Gordon (1988) elaborates the epistemology of science and how it is implemented in biomedical epistemology. She argues that the universe is perceived as a substance, and the components are formulated by atoms. In the scientific analytical process, the whole is broken down into pieces, and individual components are examined. Consequently, all the parts are reconstituted and reinterpreted as a whole. This scientific epistemology is implemented in a clinical medical analysis, and the human body is also viewed as components of divided parts. The patient's body is perceived as a whole in the first stage of diagnosis, and then the parts of the body are examined to identify the cause of a disease. At the end of this stage the divided body parts are reunited to make sense of the whole body function (Gordon 1988:32).

Hepburn (1986) argues that the etiological approach of biomedicine is a cultural product of the West, and physicians' treatment emphasizes disease classification, the diagnosing of the individual body's malfunctions. Starr (1982) indicates that the development of science, or bacteriology, as well as the development of technological

devices affect the etiological nature of biomedicine. For instance, pathogenic microorganisms were able to be identified by a microscope (Starr 1982). Although, the disease characteristics have been transformed from infectious disease to chronic disease in the post war decades, the etiological nature of biomedicine still lingers on in its discourse (Hepburn 1986:60-61).

Martin (Martin 1996:105) argues that biologists' conception of the body, which views the human body as a machine, is inherited in biomedical epistemology. The body parts constitute a hierarchy which is based upon functionality. The brain is placed at the top of this organization. This mind/body dichotomous conception is elaborated by Lock and Sheper-Hughes (Lock and Sheper-Hughes 1990). *Body* is often conceptualized as an opposed dichotomy of *mind*, and it is detached from its social environment. The rational mind is perceived as being able to examine the human body and its natural surroundings objectively (Lock & Sheper-Hughes 1990:55, Turner 1984:22).

On the contrary, the East Asian concept of body is different from that of the West. Lock and Sheper-Hughes argue that in East Asian countries, dialectics (dichotomies) are not in conflict with each other, they are rather kept in balance and complement each other. They attempt to present Chinese complementary dichotomy as an example. Here the body is not conceptualized in an extreme dichotomy. Lock and Sheper-Hughes define complementary duality very much like the yin and yang dichotomy.

... complementary (not opposing) duality in which contrasts are made between paired entities within the whole. One of the better-known representations of balanced complementary is the ancient Chinese yin-yang cosmology, which first appears in the I Ching somewhat before the third century B.C. In this view, the entire cosmos, including the human body, is understood as poised in a state of dynamic equilibrium, oscillating between the poles of yin and yang, masculine and feminine, light and dark, hot and cold. [Lock and Sheper-Hughes 1990:55]

Lock and Sheper-Hughes argue that in the West there is a conceptual opposition in the form of logical structure, such as in the natural/supernatural, real/unreal, nature/culture dichotomy. These dichotomies are based upon Western logical structure, popularly known as Cartesian dualism, which is influenced by Western epistemology (Lock & Sheper-Hughes 1990:52). Cartesian dualism influences the Western conception of the *body* (Turner 1984:22). Dossey (1984:15) argues that dualistic logic based upon Cartesian dualism is rooted in biomedical epistemology.

It is a mistake to underestimate the force of Cartesian dualism in medicine today. In spite of a growing disaffection of a section of the populace with traditional approaches to health, the dualist philosophy is alive and well, the guiding light of almost all theoretical and clinical efforts of Western medicine. [Dossey 1984: 15]

### **Intuitive Knowledge and Scientific Knowledge in A Biomedical Discourse**

A physician's practice is perceived as a combination of art and science, and physicians blend their intuitive and scientific knowledge in their medical decision making. In the medical school education, scientific knowledge is transformed for physicians (Good 1993). Intuitive knowledge is consciously and unconsciously formulated through a physician's own clinical experience, including sight, sound, touch, smell, emotions. Intuitive

knowledge constitutes a hermeneutic sense to add to scientific knowledge (Gordon 1988:269).

Lyotard (1993[1979]:18) defined various forms of *knowledge*. He argues that the intuitive knowledge is often concealed by pragmatic, rational, and perceptive knowledge. All kinds of knowledge mutually formulate power in order to control diverse arenas of human abilities. Knowledge manipulates one's perceptions of pragmatism and rationality. Knowledge includes notions of practical techniques, such as "knowing how to live," "how to listen." Knowledge evaluates "good" performances in discourses: directing objects to be known, making decisions, and evaluating performances. Knowledge also controls emotion, such as appreciation and sensitivity to the aesthetics of a sound or color.

. . . what is meant by the term *knowledge* is not only a set of denotative statements, far from it. It also includes notions of "know-how," "knowing how to live," "how to listen," etc. Knowledge, then, is a question of competence that goes beyond the simple determination and application of criteria of efficiency (technical qualification), of justice and /or happiness (ethical wisdom), of the beauty of a sound or color (auditory and visual sensibility), etc. Understood in this way, knowledge is what makes someone capable of forming "good" denotative utterances, but also "good" prescriptive and "good" evaluative utterances. . . It is not a competence relative to a particular class of statements (for example, cognitive ones) to the exclusion of all others. On the contrary, it makes "good" performances in relation to a variety of objects of discourse possible: objects to be known, decided on, evaluated, transformed . . . From this derives one of the principal features of knowledge: It coincides with an extensive array of competence-building measures and is the only form embodied in a subject constituted by the various areas of competence composing it. [Lyotard 1993[1979]:18]

Scientific knowledge is systematically formulated, and the knowledge is able to explicitly illustrate rules and formulas (Gordon 1988:270). Lyotard (1993[1979]:14) argues that the positivist, or pragmatic kind of scientific knowledge is associated with technology, and it supports man utilizing materials. Intuitive knowledge is the critical, reflexive, or hermeneutic kind of knowledge and it will reflect directly or indirectly on

individual values or aims. Once intuitive knowledge is formulated in one's mind, it does not easily disappear from the mind (Lyotard 1993[1979]:14).

Gordon argues that scientific knowledge has begun to dominate in a clinical practice, and intuitive knowledge-based medical decision making has fragmented. The human body is totally detached from the mind, and the detached body is perceived to be physiologically quantifiable and explicitly analyzable in a scientific discourse (Gordon 1988:41). In addition, along with expansion of technocrats in American health care industry, scientific discourse is more appreciated than discourse which uses metalanguage, such as ordinary and poetic discourse (Starr 1982). Physicians' discourse with his patients have been increasingly geared to ensure that technically significant data are gathered. The data shows how the body is functioning, from a mechanical perspective, and ignores the emotional experience of the patient's illness. It is only when the patients can objectify their body, that they are allowed to participate in a rational discourse with physicians. The patient who is able to engage in such a discourse is considered a good patient (Kramayer 1988:62).

Ricoeur (1978) elaborates discourse which transforms intuitive and scientific knowledge. He argues that discourse is a creative use of language (Ricoeur 1978:122). Three kinds of discourse, ordinary, poetic, and scientific discourse, distinctively illustrate diverse meanings of social phenomena, such as illustrating diverse conditions of patients' body and all kinds of emotional experience of illness. Metalanguage is the language used in ordinary and poetic discourse, and contains multiple meanings. Ordinary discourse is dominated by ambiguity, and patients and physicians daily use it in their local communities

where people share common interest, perception, and world view. There are distinctive styles of ordinary discourse in each community and culture. For instance, in the US, "My head feels like it is in a vice." means "I have a headache," "My head is congested," "My sinus are stuffed," and so on. Poetic discourse transforms multiple meanings by use of metaphors because metaphors contain multiple meanings. Although ordinary discourse is able to reduce ambiguity by questioning, poetic discourse maintains ambiguity. This is because implicit meanings of metaphors are never able to be clarified. On the contrary, scientific discourse transforms specific meaning by use of specific terms which are commonly used in a particular community, and the semantic meanings of each term is specified, such as, "blood pressure" and "pulse." The context of the language is the same cross culturally. In other words, scientific discourse attempts to be universal in the world (Ricouer 1978:126).

Lyotard (1993[1979]:3) elaborates the nature of scientific discourse. He argues that scientific knowledge is transformed into a legitimate form of discourse, and knowledge is then only able to be reproduced in this particular style of discourse. The legitimacy of a scientific statement creates tension among sender, addressee, and referent of the knowledge because the sender is expected to deliver the truth about the referent. Thus, the sender has to prove what he says. He also has to prove what is wrong about any opposing or contradictory statements concerning the same referent. Validation of statements become law in a scientific discourse. What the sender says should be replicated by the addressee because the addressee himself will be a potential sender. Therefore, his statement has to have the same quality as the sender's. The referent, which the sender

speaks about is supposed to be proven as truth in his statement. (Lyotard 1993[1979]:23-24).

First, the sender should speak the truth about the referent, the path of the planets. What does this mean? That on the one hand he is supposed to be able to provide proof of what he says, and on the other hand he is supposed to be able to refute any opposing or contradictory statements concerning the same referent. Second, it should be possible for the addressee validly to give (or refuse) his assent to the statement he hears. This implies that he is himself a potential sender, since when he formulates his agreement or disagreement he will be subject to the same double requirement (or proof or refutation) that Copernicus was. He is therefore supposed to have, potentially, the same qualities as Copernicus: he is his equal. [Lyotard 1993[1979]:23-24]

Scientific discourse, which has predominantly constituted the epistemology of biomedicine, is increasingly required within biomedical discourse (Gordon 1988:262). Power is constituted by citing a certain referent as a reality or a proof in the discourse. Reality in judicial, ethical, and political discourse is formulated by evidence. An effective and persuasive argument is accomplished by being able to understand and manipulate this context of reality. Once technocracy is implemented in a society, reality, which is constituted by scientific discourse, is reinforced, and one's mode of conduct (what is right and wrong) is directed by this reality (Lyotard 1993[1979]:47). For instance, to measure a quality of delivering health care, technocrats developed objective criteria by using scientific evidence in medical judgment. In a discourse between physicians and technocrats, physicians, as a sender of the information of their medical judgment, are required by technocrats, or addressee, to validate the efficiency of the medical decision making with objective criteria (a referent) (McGynn 1997:16). However, scientific discourse is not easily formulated because it is really difficult to expect the addressee to reconstitute the original information, such as patients' emotional experiences (Gordon

1988:262). In other words, intuitive knowledge is discredited in scientific knowledge because the truth formulated by scientific discourse does not contain intuitive knowledge. Senses and intuitive knowledge are not cited as a referent or a truth, and they do not have enough power to legitimate and formulate a process of scientific knowledge construction. Lyotard (1993[1979]) argues that in scientific discourse, myth and legend are required to surrender. The discourse demands clear minds and cold wills. Through citation, scientific knowledge shares common sources of proof in discourse (such as validated research results in a biomedical journal). It is distinct from everyday ordinary discourse or a metadiscourse which does not have the criteria of efficiency since the argumentation is not perceived as pragmatic, and the production of proof is not sufficient (Lyotard 1993[1979]:62).

Lyotard (1993[1979]) argues that scientific discourses become relevant if they generate scientific knowledge and are able to be implemented into other forms of languages, such as metalanguages used in ordinary and poetic discourse. Nevertheless, science does not have any metalanguage in which all other languages can be interpreted and evaluated. Consequently the nature of scientific discourse develops distinctly from other discourses, such as philosophy (which addresses an issues in a much broader sense)(Martin 1996:100). This makes it difficult to identify scientific information within the context of other forms of languages. For instance, Armstrong (1983) argues that a scientific discourse utilized in biomedicine does not take into account the psychosomatic illness related to social, or historical phenomena. Lyotard addresses that in order to generate a scientific statement, and pragmatize scientific knowledge, it is necessary to



interpret the scientific knowledge into metalanguage. ... For instance, even among technocrats, decision makers have to transmit scientific information for the benefit of their executives (Lyotard 1993[1979]:64).

Kawai (1982) argues that scientific discourse is a product of Western epistemology, and identification of truth is a focus of western thought. He argues that an absolute truth is perceived as situated in the center the discourse. Therefore, the dialectic is constituted to identify the truth. Dialectic logic is likely to be dogmatic and dominates the center. Such dogma always creates a conflict between two polarized positions which attempt to eliminate powers of opposition. If an opposing idea steps into the central area, the other side attempts to eliminate it. Kawai criticizes the fundamental dialectic structure of scientific discourse because it develops potential conflicts between the opposite sides. The truth dominates the center of epistemology which is supported proof, and creates an absolute world view. The dogmatic center of logical structure relegates the opposing power to a marginal realm of the world. If the heart of logical structure is perceived to exist, internal conflicts can be averted to identify the heart (Kawai 1982:52).

On the other hand, Gordon (1988) argues that such scientific discourse, constitutes false consciousness because the truth of a discourse is falsified while it is universally accepted. She argues that scientific experiments are conducted in an artificial setting, but used in a broader arena than the study. For instance, even though scientific testing is only conducted in the laboratory, the outcome is considered as a truth of nature. In a discourse of medical decision making, studies of medical analysis proceed by using hypothetical situations. A clinical trial is conducted randomly, and the result is generalized and

constitutes a truth of its effectiveness. However, there is no average human body, the true body is falsely constituted by the outcome of the experiment. Therefore, the studies ignore how a real situation yields various effects (Gordon 1988:32).

### **Implementation of Science and Technocracy in American Biomedical Discourse**

Along with institutionalized medical systems, enhanced rationality is prioritized in providing care. The rationality of biomedicine contains a definite epistemology in science: humans are able to overcome nature. The intuitive part of medical practice and clinical decision making is undergoing attack by more rational, explicit, and quantifiable methods of analysis, or scientific discourse (Elstein 1976). For instance, in “informed consent” documents, physicians are required to use a scientific discourse to avoid risk of medical malpractice, and they have to use proof to demonstrate rationality and efficiency of their diagnostic and treatment decisions. In addition, to controlling health care expenditure, health care institutions implement scientific measurement to estimate rational treatments. Consequently, the methods of medical decision making have been made uniform since the early 1980s (Miller and Luft 1994, McGynn 1997, Gosfield 1997, Enthoven 1997).

Horkeimer illustrates that the expansion of scientific epistemology, based in materialism and mechanistic thinking, impacts the construction of thought process in a mass population. This is particularly the case with mathematics, which play an important role in the organization of thought. Horkeimer also argues that the invention of science and technology plays a dominant role in the constant struggle among individuals and societies in the modern era (Horkeimer 1995[1968]:263). Martin depicts that science and

technology have become a common interest among people in industrialized countries, and they utilize scientific discourse in their daily basis (Martin 1996:104). In other words, almost the entire population become scientists (Downey, et al 1993). Scientific institutions influence the large-scale global political and economic forces, and attempt to impose its epistemology with structural forces (Martin 1996:99).

Lyotard illustrates that technocrats gradually use powerful scientific discourse to improve productivity. The proof is used to identify a kind of rationality or enhancement of productivity among technocrats. This is because technocracy inherently maximizes output and minimizes input, in order to engender optimal performance. In contrast with the epistemology of science which attempts to identify the absolute truth of nature, technocracy, aims at improving productivity, efficiency, or rationality, and producing commodities with less energy (Lyotard 1993[1979]:44). The goal of the language game is no longer identification of truth, the goal is achievement of the best possible input/output equation: *productivity*. In a discourse of the state/company, idealist and humanist narratives are replaced by scientific discourse in order to justify the new goal, which provides the power to control the discourse with proof. Thus, scientists, technicians, and instruments are purchased to support the argument in a discourse with proof, not as a means to find the truth (Lyotard 1993[1979]:46).

Force is also associated with this technocratic game. In the game of technocracy, force, such as the financial incentive of the managed care system, is constituted by controlling a risk (such as increasing health care expenditure). The efficiency of force threatens to eliminate the player who opposes it (individual physicians who do not

participate in a health care network constituted by insurance organizations), or any other strong factor of risk (Lyotard 1993[1979]:46).

Along with the expansion of science and technocracy, health is symbolically conceived as a possession and considered as a commodity that is purchased. Individuals are the owner of their own symptoms. In other words, during the enlightenment age of biomedicine, biomedicine has failed to take into account the relationship between quality of living and good health. It emphasizes the physical condition of the body and discounts the emotional experience of illness. This is because biomedicine adopts rational techniques as a means to treat sickness. Medicine is constituted by materialism in which the body is perceived as a machine and malfunctioning body parts as parts able to be repaired. Emotional function, or illness, is detached from the body. Patients are trained to adopt the mind-body dichotomous concept of biomedicine (Kramayer 1988:60).

In other words, the self talks about its body's condition. As a result of patient care reform in the US, patients are directed to express themselves, and expected to provide objective data concerning their bodies. The responsibility to care for the patient's body transforms from the health care provider to that of the consumer themselves. Hypertension patients have to monitor their blood pressure on a daily basis at home (Enthoven 1977:46-47). Health is perceived as a theme in which the self has to be managed (Gordon 1988:36).

Technological development also influences the conceptualization of the body as a commodity. Technocrats are nowadays able to label the value of the healthy body based upon individual immunological functions. Martin's study of immune technology (1996)

explains that the body of health is conceptualized by immunological concepts. The healthy body has a strong immune system, and this body is perceived to be superior to the body in which the immune system is not sufficient. Martin called this the epistemology of neo-Social Darwinism. Technocracy manipulates the concept of health, and some particular bodies are perceived as “unfit” and of low quality, on the other hand, some are viewed as “fit” and of high quality (Martin 1996:105).

### **Power Construction in Science and Technocracy, and Identity Crisis of American Biomedical Physicians**

Since technocrats control medicine, medical knowledge increasingly becomes universal and replicable. Medical practice requires scientific rationality and enhances visibility. Physicians resist this technocratic movement because the externalization of medical knowledge removes a physician’s power to conduct autonomous clinical decision makings as well as their authority of knowledge. Young (1981) argued that a physician’s reputation and capability are associated with their embedded intuitive knowledge, and individual physicians maintain their identity by possessing designated proficiencies, or knowledge (Young 1981:324).

Horkeimer (1995[1968]) argues that social reality becomes exclusively constituted and falsified by science and technocracy, and individuals (such as including individual physicians) become increasingly unhappy because of legitimacy formulated in a scientific discourse. Individual power has been taken away by science and technocracy. He warns that this will eventually destroy the social structure because rationalism ultimately creates a general irrationalism. The so called reasonable actions of individuals will create the

destruction of society, as exemplified with increasing health care expenditure along with new technological development. The short term view of usefulness will create disaster in the long run. People will ignore the in-depth analysis of scientific results (Horkeimer 1995[1968]:259-260).

Technocrats perceive that individual preferences decrease the performance of the entire technocratic system, or perceive to decrease productivity. For instance, the technocrats do not trust the individual needs of the system, and they do not count on individual physician's preferred treatment formulated in their own experience. Lyotard (1993[1979]) argues that performance efficiency is developed by individual relationships in diverse contexts in a society, while the domain of social theory, which technocrats rely upon, is constituted by the generalized functions of the social system (1993[1979]:55). Technocrats assume that individual physicians are not capable of knowing their needs since they do not have sufficient knowledge about new technologies (Starr 1982). In other words, physicians' modes of performance are not formulated by discourses of physicians themselves, or their social relations, but rather, they are gradually developed by the dictatorship of technocrats. Consequently, technocrats of health care industries constitute guidelines, called "cookbook medicine," and physicians' ideal treatment is legitimized and controlled by technocracy (Shelesiger, Gray, and Pereira 1997:108-109).

Lyotard argues that this arrogant attitude and associated blindness of the decision makers in technocracy, contradicts the pragmatics of science because no scientist neglects the "needs" of a research project. However, many scientists, including biomedical scientists and researchers, do not go against the ignorance bred into technocracy because

they are part and parcel of its hierarchy, including the university systems. Their positions might be canceled by their critique of the system. The stronger the criticism of the system, the more likely the criticism will be denied because it will potentially destroy the absolute truth formulated by proof to identify enhancement of productivity. In other words, the decision maker's arrogance, which is not associated with scientific knowledge, develops a power to exercise terror (Lyotard 1993[1979]:63).

Speed becomes an important criteria to process all the information of knowledge in a system. Lyotard (1993[1979]) argues that the scientific paradigms can only illustrate a phenomena to reduce the complexity of the system. Scientific discourse formulates a reductionistic approach in order to maintain the power of the system. In other words, speed formulates efficiency in a scientific discourse. Therefore, individual desire is perceived as an obstacle which runs in opposition to operating the entire system efficiently, or instantaneously. Thus, administrative procedures shape individual desire so it will work for the system, resulting in the elimination of metaphysical discourse (Lyotard 1993[1979]:62). A physician's clinical decision and reasoning process is directed to be more "rational" – explicit and quantifiable (Starr 1982).

In order to process clinical information rapidly, technocrats have developed the basic science to measure physicians' quality of performance. Physicians' clinical decisions are scientifically monitored in order to supervise the physician's practice. The efficiency of medical judgment is also calculated by computers, and a physician's practice is monitored and supervised. In other words, the intuitive part of a physician's clinical decision, which used to be appreciated as an art of medicine, has been totally replaced by scientific and

materialistic methods. The individual physicians lose their autonomous power in decision making and their identity as well, and become a laborers in an institutionalized organization (Starr:1982).

## **Conclusion**

To conclude, scientific and technocratic hegemony in American biomedicine manipulates its biomedical discourse. Technocrats implement scientific discourse in their biomedical discourse to formulate power in their discourse and to enhance productivity (increasing capital gain). Proof is formulated to distinguish rationality, and attempts to eliminate any opposed players in a discourse. Force and risk are shaped to maintain a language game of technocracy. Force (i.e. the financial incentive of managed care system) is used to avoid a risk of increasing health care expenditure. To improve productivity, technocrats have implemented the engineering concept of quality control. As a result, the human body is commodified, and a commodified human body is perceived as needing maintenance. Physicians are employed to effectively maintain the healthy body of their patients and prevent them from developing chronic disease. Technocrats employ scientific discourse to measure the rationality of the physicians' treatment, and they do not trust individual physicians own preferred treatments based upon their embodied intuitive knowledge. Consequently, American physicians' individual identity has been fragmented by the increasing power of technocrats.

Lyotard (1993[1979]:55) argues that technocrats' arrogant attitudes lead to the destruction of the entire functioning of the system. Furthermore, he states that any



attempt of complete control over a social system will lower the performance rate even though the ideology is aiming to improve it. The quest for such dominant control eventually asphyxiates the operation of production (Lyotard 1993[1979]:55).

## **CHAPTER TWO**

### **Managed Care Plans and Quality Control of Care**

IN THIS CHAPTER, I will first characterize managed care systems. I then illustrate an engineering concept of a quality control system which is utilized to enhance productivity of technocrats, such as the health provider and insurance organizations. In order to display the reasons to formulate cost incentive managed care plans, I will also depict how development of science and technology in biomedicine has increased health care expenditure in the US.

Since the 1980s, the role of health insurance organizations have drastically changed in the US. Before the 1980s, insurance organizations did not organize health care networks to provide cost effective care. Cost was customarily developed by physicians, and reimbursement of service was negotiated between insurance organizations and providers, such as physicians and hospitals. However, because of increased health care expenditure, the government, as the largest consumer group of health care in the US, intervened in the system to decrease health care cost. Since the 1980s, insurance organizations began to organize health care networks between provider and consumer organizations to provide cost effective care to the consumer. In other words, insurance organizations became health intermediary organizations. To control quality of physicians' care, insurance organizations as well as the government developed several scientific measurements to monitor physicians' performance. In addition, insurance organizations formulate uniform guidelines to direct physicians' performance. The basic principle of quality control is associated with disease prevention rather than treatment of disease. Therefore, the system

strictly controls high technology use of surgical treatment as well as use of emergency rooms. The system also give primary care physicians a burden having to monitor patients' bodies, and maintain the healthy body from attacks of chronic diseases. However, many inner city emergency rooms in hospitals have been used as walk-in clinics because there were not enough clinics. Managed care plans ousted outpatients from hospitals to clinics. Thus, to protect true emergency patients, the government introduced a regulation that any patients coming into an emergency room have to undergo series of medical screening tests.

Second, I will illustrate how science and technology have been implemented in the American health care system up to the 1970s, and how that influence has changed when the government intervened to deal with increasing health care expenditure. The major development of science in biomedicine occurred in the nineteenth century. For example, surgery techniques were improved because of anesthesia (1846) and antiseptics (1867) development. Diagnostic methods were improved because of technological devices, such as stethoscopes and X-rays. After World War Two, science has further advanced. Infectious diseases were controlled by the development of antibiotics. Surgery has dramatically improved by blood and plasma transfusion technology. Hospitals as well as medical schools were constructed to support improvement of scientific knowledge through research and education. Consequently, health care expenditure increased, and the largest health care consumer, the government, directed insurance organizations to control health care expenditure.

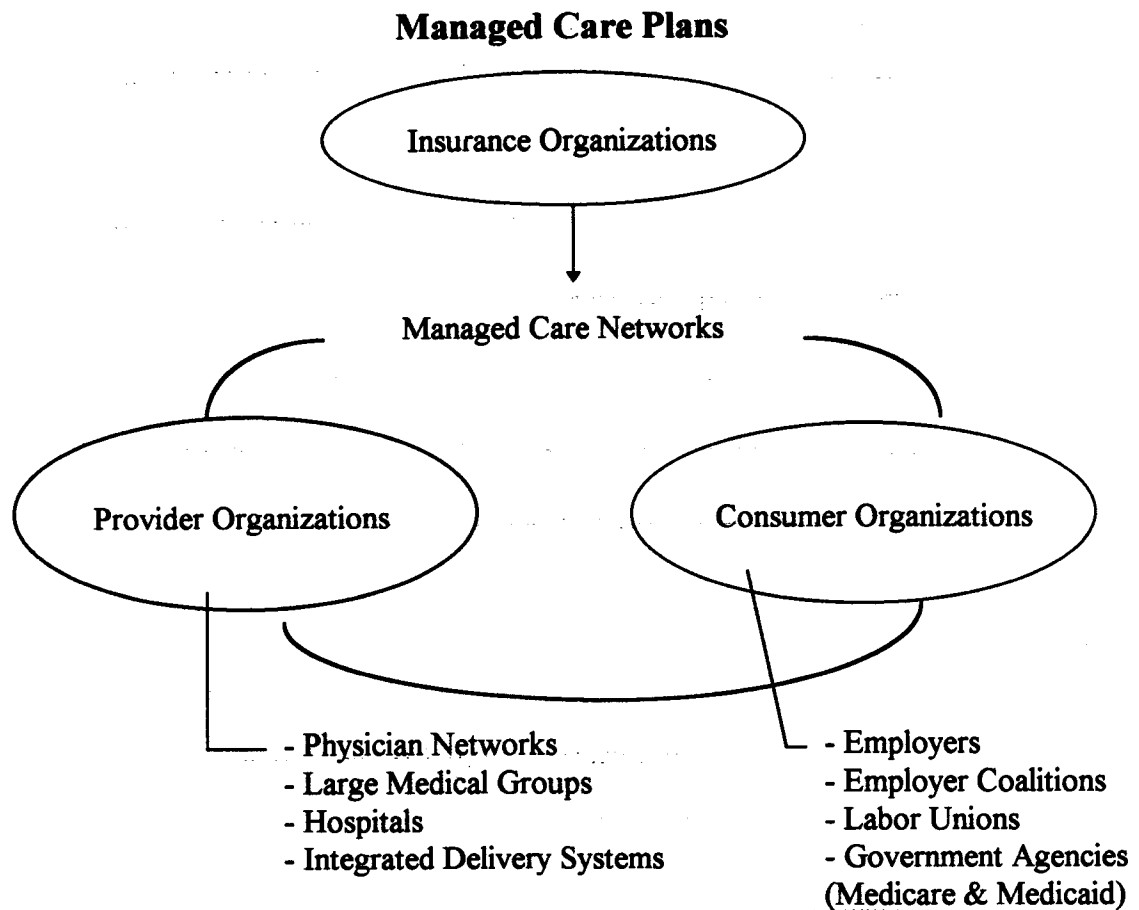
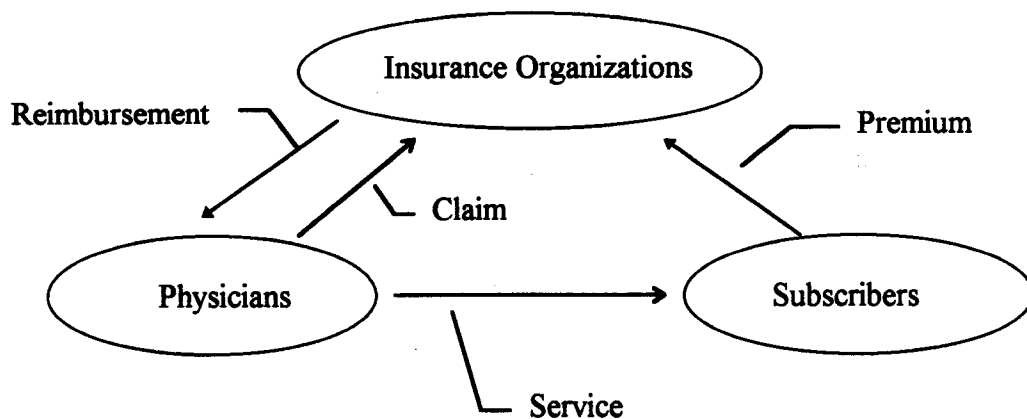
In the final section of this chapter, I will illustrate how managed care plans have been implemented in the US health care system. In the beginning of the 80s, large employers encouraged their employees to contract managed care plans because it saved employers' health care expenditure. In addition, large consumer insurance companies, such as Blue Cross/Blue Shield, began to organize managed care plans between 1980 and 1992. Consequently, the numbers of managed care plan enrollees have increased, and the health care system has been institutionalized.

### **Overview of Managed Care Plans**

There is a limitation to illustrate the overall picture of managed care plans because it is still rapidly growing, and there is not enough consistent and common terminology. Therefore, first, I would like to utilize Miller and Luft's elucidation (1994) of the managed care characteristics in their article, *Managed Care Plans: Characteristics, Growth, and Premium Performance*. Three kinds of organizations – consumer, provider, and insurance (Miller and Luft named it health benefit intermediary) organizations – formulate the entire managed care system. Major consumer organizations are employers, employer coalitions, labor unions, and government agencies, such as Medicare and Medicaid. Most provider organizations are constituted by physician networks, large medical groups, hospitals, and integrated delivery systems. Currently many insurance organizations not only insure the health care cost, but work as health intermediary organizations, and create networks among physicians, clinics and hospitals to provide cost effective health care for consumers (See Figure 1). The networks are mostly formulated by contractual relationships among

insurance, provider, and consumer organizations. The formulated services are delivered as various kinds of health plans, Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs), Point Of Service (POS), Fee For Service (FFS) and Blue Cross/Blue Shield (Miller and Luft 1994:438). In particular, HMOs blend the delivery of health care with health insurance (Knickman and Thorpe 1995:279).

In most HMOs, Primary Care Physicians (PCPs) play dominant roles to restrain access to specialists, hospitalization, and other services. A family practitioner, general internist, general pediatrician, obstetrician, and gynecologist are defined as PCPs (Mezey and Lawrence 1995:126). HMOs developed capitation systems to manage PCPs' performances, and they restrict referrals of PCPs to specialists, hospitalization and other services. HMOs attempt to regulate the cost of health care delivery through this system. In contrast to classic indemnity plans (in which subscribers are reimbursed health care cost by the insurance organizations if subscribers pay the premium), PCPs receive monthly payment, a fixed fee for each covered individual or family. In addition, as incentives, they receive bonus payment or withholding accounts in exchange for prohibiting special treatments (Hillman, Welch, and Pauly 1992:137). Insurance organizations produce a profit by the difference between the payment to PCPs and the actual cost of delivering care. The fewer referrals to other specialized providers that PCPs make, the more profit the insurance organizations are able to produce (Mezey and Lawrence 1995:127).

**FIGURE 1****FIGURE 2****Indemnity Plans (Fee For Service)**

HMOs provide the most complex managed care plan, and it is formulated by six types of sub-disciplinary plans, such as Prepaid Group Practice (PGP) model HMO, a staff-model HMO, Network model HMO, Independent Physician Association (IPA) model HMO, Point Of Service (POS) HMO, and mixed model HMO. A staff-model HMO employs its own staff physicians and hospitals, such as Kaiser, Group Health Cooperative Puget Sound, or Harvard Community Health Plan. In Kaiser's case, Kaiser Foundation Health Plan Inc. (an insurance company) works closely together with the Permanente Medical Groups (a provider of physicians and hospitals). In a staff-model HMO plan, physicians receive a fixed salary, and are responsible in providing care which is equivalent to a salary. Capitation payments maximize the numbers of patients per each PCP (Hillman, Welch, and Pauly 1992:140). A PGP-model HMO is similar to a staff-model HMO plan. A PGP-model HMO exclusively contracts with large medical groups. An increased number of large medical groups recently contracted exclusively with primary care physicians to formulate their capitated groups. In this case, HMOs and medical groups are closely related with each other because the medical group relies on the HMO for nearly all patients and HMOs rely on the medical group to manage physician services. Many network-model HMOs contract with large medical groups, but there are some exceptions. Many IPA-model HMOs contract with Independent Physician Associations (IPAs), which usually contract with solo and small group physicians, to deliver physicians' services. Occasionally HMOs directly contract with solo and small group physicians. Some capitated IPA-model HMOs share financial risk with providers, and they adopt some organizational characteristics of large capitated medical groups. For instance, a

provider more carefully monitors the financial impact upon service use. A mixed-model HMO contracts with multiple provider organizations or network. Subscribers of HMO plans usually receive their care within the organized provider network. However, POS HMO plan subscribers are able to cover out-of-network services usage only a time when the necessity of the service is approved. In particular, except for a staff-model HMO, individual physicians are also able to take care of indemnity insurance and Medicare patients. They often contract with multiple network plans (Miller and Luft 1994:438-442).

In contrast to HMO plans, Preferred Provider Organization (PPO) plans do not generally capitate or formulate financial risk in a physician's contract. PPOs' payment is similar to a fee-for-service system (indemnity plans), in which cost of services is set by physicians, and paid by patients and insurance organizations (Knickman and Thorpe 1995:283) (See Figure 2). Insurance organizations contract with a set of primary care physicians (PCPs) (solo and small group physicians) as well as hospitals to formulate the PPO plans' network, but sometimes the network includes large group practices. If PCPs refer the patient to specialists or to hospital admissions, they first have to get prior permission from a utilization committee of PPO plans. Without the authorization, PCPs' service will not be reimbursed. PPO plans often use a fee schedule for reimbursement criteria from insurance organizations to their contracted physicians. PCPs have to agree upon a fee schedule of PPOs in an exchange to be provided patients by PPO plans (Mezey and Lawrence 1995:127). To formulate a fee schedule, insurance organizations negotiate with physicians to discount from usual, customary, and reasonable charges. Hospitals and



groups of physicians often do not make any exclusive contract with insurance organizations to participate in the network. PPO plan subscribers sometimes are reimbursed even though they use non-network services. Exclusive provider organization (EPO) plans are similar to PPO plans, but they do not cover the use of non-network services (Miller and Luft 1994:440-441).

To formulate HMO and PPO plans, most insurance organizations contract with more than one type of physician organization, and they merge and expand rapidly across geographic boundaries. An increasing number of insurance organizations exclusively contract with health care provider groups, or multiple physician organizations and hospitals, and formulate integrated delivery systems. For instance, by forbidding contracts, insurance organizations provide a link between large capitated medical groups, which are formulated by primary care physicians, and IPAs, which have a large number of specialist resources. Hospitals primarily contract with insurance organizations, but occasionally contract with consumer organizations directly. An increased number of individual hospitals belong to hospital chains or alliances with large integrated delivery systems. (Miller and Luft 1994:439-442).

### **Use of Science and Technocratic Concept in Quality Control of Managed Care**

Science and technocratic concepts have been implemented to improve the measurement of quality in health care, especially to develop cost effective treatment (McGlynn 1997:8). Since managed care was started in the late 1970s, insurance organizations as well as consumer organizations began to use scientific measurement to assess quality of care (Winlensky 1997:79). Regulation of quality control of managed care had originally

developed on the state level. The diverse formats of measurement to regulate managed care business have been distributed all over the states. Gosfield argues that quality control measurement of managed care accountability has been developed to avoid risk of tort verdicts. In the past, subscribers of managed care plans blamed the insurance organizations for bad outcomes of treatments (Gosfield 1997:27). Thus, each managed care plan has developed its own quality control system, such as accountability measurement. To improve accountability of care, large multidisciplinary medical groups, such as the Mayo Clinic, Kaiser Permanente, and Park Nichllet Medical Center, compensate (such as bonus payment) physician employees, in their group through a standardized quality measurement.(McGlynn 1997:12).

The physician's accountability is classified by quantification of their performance, and the labeled accountability is utilized in order to compare individual physician's performance, such as how well physicians maintain the enrollees' healthy body conditions of the capitation system. In a case of physicians' accountability in the capitation system, which provides all needed care to the enrolled population in return for a set fee, physicians are compensated by their contracted medical groups according to their accountability. The accountability is provided to the subscribers by demonstrating each physicians' quality of performance. Thus, consumers are now able to monitor the quality of individual physicians as well as the network services of the health plans through comparing the physician's accountability (McGlynn 1997:12, Enthoven 1997).

The large medical groups, such as the Permanente Medical Group's utilization management department, developed uniform treatment for their organization to reduce

uncertainty of physicians' clinical decision making. This is because it is difficult for individual physicians to catch up with new treatments based upon rapid advancement in medical science. The uniform treatment is aimed to eliminate individual physician's practice based upon their intuitive knowledge (Enthoven 1997:47).

Technocratic concepts, such as Continuous Quality Improvement (CQI), or total quality management, have gradually been implemented in the American health care industry to improve quality of delivering care (Enthoven 1997:48). The CQI concept had been developed by American scholars, such as Deming (1986), Juran (1964), Crosby (1979), and was used to improve productivity of technocrats. For instance, to amend output of performance, CQI attempts to decrease variation in a work process. CQI also requires that all members of the system formulate a team to improve quality standards rather than individual involvement in the process. Japanese industries first implemented the concept to improve quality of their products, and recently American business enterprises also utilized the concept to improve management quality. The major process of CQI is to understand the system of the process entirely; know the causes of variation in the process; use scientific approaches (such as making a hypothesized plan for the improvement process); and finally to start the postulated improvement approach and observe and analyze the impact of outcome to an entire system. Meanwhile the outcome of improvement process is reviewed while maintaining the entire process to keep continuous quality improvement (Kovner 1995:183).

However, physicians are not willing to participate in the CQI project because it eliminates physicians' autonomy in medical decision making. Therefore, now CQI is

implemented only to improve non-delivery clinical services to patients and other consumers. Currently, some treatment, such as hip replacement surgery, coronary artery bypass graft (CABG) surgery, breast cancer screening, cholesterol treatment, and reduction of incidence of medication errors are targeted to implement CQI techniques to improve productivity (Enthoven 1997:48).

Large prepaid group practice (PGP) managed care plans also developed measurement of the quality improvement process and monitors performance of organization both internally and externally. The employers contracting PGP managed care plans are attempting to build comparative measurement across systems, such as the Pacific Business Group on Health, Health Care Payers Coalition of New Jersey, the Buyers' Health Care Action Group in Minnesota, the Employer Health Care Allience Cooperative of Madison, Wisconsin, the Chicago Business Group on Health, the Business Health Care Alliance in Appleton, Wisconsin, and the Colorado Health Purchasing Alliance. To compare each health plan's quality performance information, explicitness is demanded in a reporting process of valid and reliable data (Enthoven 1997:49).

To respond to the demand of explicitness in quality performance information, the science of quality measurement has developed over the past decades (McGlynn 1997:8, Enthoven 1997). Quality measurement is used to make assessment of a precise relationship between price of services and quality of treatment. For instance, monitoring how changes of premium prices in quality of care. Recently, objective criteria based upon scientific evidence in medical judgment has been developed, and health care consumers, including government, and insurance organizations, attempt to formulate practice

guidelines (McGlynn 1997:8-9). McGlynn indicates that three key dimensions of scientific measurement (reliability, validity, and adjustability) are used to measure quality of care. Reliability is a replicable measurement which is able to produce the same result. Validity is a measurement which can identify delivered quality of care. Adjustability is the identification of factors which cannot be taken into account in a final score of quality measurement (McGlynn 1997:16).

Three organizations, the National Committee for Quality Assurance (NCQA), the Foundation for Accountability (FACCT), and the Joint Commission on Accreditation of Health Care Organization (JCAHO), have formulated standard systems for hospitals and managed care organizations. FACCT is a coalition of consumers and consumer organizations which is formulated by representatives of large employers, consumer groups, and government. FACCT enrolling 70 million members is a rival of NCQA (Enthoven 1977:10, McGlynn 1997, Winlensky 1997). Report cards are used to measure quality of hospitals, health plans, and physicians. For instance, mortality rate can be measured by the cards (McGlynn 1997:10). NCQA is formulated by representatives of consumer and insurance organizations, and government (Winlensky 1997:79). The NCQA' developed the Health Plan Employer Data and Information Set (HEDIS). HEDIS also used a report card to measure performance of managed care plans (McGlynn 1997:10). Recently, Health Plan Employer Data and Information Set (HEDIS) 3.0 is released. HEDIS 3.0 is a set of data which can be used to measure the function of health plans, and can demonstrate how well plans depict prevention and early detection of acute and chronic disease across all age levels. In the fall of 1996, FACCT also released a

similar set of quality performance measurements which assess treatment for diabetes, breast cancer, and major depression. It also measures patients' satisfaction with the services of health plans and the plans' effectiveness of disease prevention. Currently, JCAHO is collaboratively working with FACCT to constitute a set of acute care measurement, named Indicator Measurement of System (IMS system) (Enthoven 1997:49).

As a result of the development of quality control system, the responsibility of treating consumers' bodies shifts from health care providers to the consumer themselves. For instance, to treat chronic disease, such as hypertension, patients have to monitor their blood pressure regularly at home. In the case of diabetes patients, they have to monitor blood sugar levels on a daily basis (McGlynn 1997:16). The shift of the treatment responsibility began to be perceived as high quality of care, or rational treatment among large medical groups. As an example, Kaiser parents are now directed to perform basic pulmonary function tests, administer therapy with nebulizer, and adjust their child's medication according to guidelines. These treatments used to be emergency room procedures (Enthoven 1997:46-47).

Quality control systems based upon utilization review standardize medical practice and take away clinicians' power and authority in medical decision making (Shlesiger, Gray, and Pereira 1997:107). Increased paper work and other bureaucratic requirements of external review direct physicians away from their primary mission of patient care. Medical autonomy is fragmented by standardized treatment which managed care organizations use. Standardized treatments are based upon a manual direction called

“cookbook medicine,” and each clinician is directed to follow the manual or guideline. Various forms of utilization review are formulated throughout the managed care industry (Shlesiger, Gray, and Perreira 1997:108-109).

### **Impact of Managed Care upon Emergency Practice**

Almost all nonfederal community hospitals have emergency departments, and the emergency services were organized very efficiently because emergency services have been traditionally better reimbursed than clinic services by insurance companies. (Mezey and Lawrence 1995:128). Emergency services in hospitals fulfill a variety of patients' needs, from actually ill or injured patient to walk-in services and to less acutely ill patients. In many hospitals, the emergency room is used to diagnose conditions of patients' bodies, and whether they need admission to the hospital or require equipment imaging facilities which are not be available in other physician's offices. It functions as a primary unit for unscheduled care to the hospital (Mezey and Lawrence 1995:135). Managed care plans provide emergency services as well as other hospital ambulatory services, such as walk-in clinics (Mezey and Lawrence 1995:123).

Weinerman et al (1966:1040) defines three categories of emergency units; nonurgent, urgent, and emergent. However, most patients cannot distinguish between these categories because the definition is professionally defined. Most patients go to the emergency room because they assume they need immediate care for their body, no matter how professionals perceive their body. Managed care systems require patients to get approval before they receive care in emergency rooms, and care is not covered without approval (Mezey and Lawrence 1995:136). Previously, some HMOs never receive

reimbursement for non-emergency, out-of-network use of health care, but now it is covered by Point Of Service (POS) health plans (Miller and Luft 1994:444).

The emergency department is formulated to care for life-threatening or potentially life-threatening conditions of the body which need immediate treatment. Thus, the medical equipment and the specialized practitioner's skill are not found at clinics. In contrast, clinic services in hospitals are conducted for patients who cannot routinely access private practitioners due to geographical and economical reasons. However, the hospital's emergency room is used not only for emergency services but also for out patient clinic care. For instance, hospitals are often the only place providing ambulatory services in many inner cities, and patients routinely visit the emergency department. Clinic services in voluntary hospitals began growing at the end of the 19th century. Until the beginning of the 20th century, the hospitals had educational and charitable functions in the community. However, along with the pressure of managed care plans, which expand networked group practices, many outpatients (walk-in visits) at hospital clinics have been ousted. HMO plans discouraged emergency room use and hospital admission, and direct enrollees to use primary care units, such as urgent care services of the network, in the case of an emergency. Since the 1980s, HMOs have also reorganized walk-in outpatient care from hospitals to their satellite clinics. HMOs' satellite clinic services are focusing upon prevention of chronic illnesses as well as hospitalization. (Mezey and Lawrence 1995:128-132).

In 1986, Congress passed the Emergency Medical Treatment and Active Labor Act (EMTALA) in order to prevent the ousting of patients who cannot afford to pay for their



care,. This law is also called the Consolidated Omnibus Budget Reconciliation Act (COBRA). EMTALA mandated that any patients who come into the emergency departments of hospitals have to be provided with a set of screening examinations to determine if they are in need of emergency care. If the patient needs emergency treatment, either the hospital provides care or sends the patient to the another institution where the patient is able to receive appropriate treatment. The EMTALA defines an emergency medical condition as “a medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain) such that the absence of immediate medical attention could reasonably be expected to result in – 1) placing the health of the individual .... in serious jeopardy, 2) serious impairment to bodily function, or 3) serious dysfunction of any bodily organ or part.” (Diekema 1995:1156).

There are three alternative forms of emergency services provided at centers in a network of HMOs: free-standing ambulatory care centers, ambulatory surgery centers, and centers further categorized as emergi-center and urgi-centers (Lowell-Smith 1994:275). True emergent patients are not served in these centers and ambulance services are not brought to these centers. Emergi-centers are open 24 hours a day and 7 days a week. Urgi-centers are open 12 hours a day, 7 days a week. These centers are used by patients who need urgent services but the conditions of their body are not life-threatening. Managed care plans direct patients in these centers instead of emergency rooms of hospitals because it can save on health care expenditures (Mezey and Lawrence 1995:137-8).

There is no boundary which distinguishes between services provided by emergency (urgency)-centers and by clinics in hospitals and their satellite offices (a group practice). Newly trained primary care physicians often start work in the chain-sponsored urgency-center because they are able to enter a practice without the expense of office supplies and equipment. Emergency medical services include accident victims, acute and life-threatening illness, such as acute myocardial infarction and stroke (Mezey and Lawrence 1995:138).

### **Increased Health Care Cost and Development of Science and Technology before 80s**

In the first half of the 19th century, medicine progressed greatly in France. Between the 1800s and 1830s, modern clinical methods were established, and metaphysical abstractions in practice were eliminated. Surgical conceptions of the body as well as autopsy studies influenced pathology, which emphasized a localized body, and examined specific organs. Disease was perceived to be located in a particular organ. Consequently, clinical observation was combined with pathological anatomy. The French physician related the physical signs or symptoms of patients with internal body functions. Statistical methods were introduced in Paris. Empirical evidence, rather than dogmatic assertions of traditional knowledge, were used to identify an absolute truth of a symptom. To identify a true cause of a disease, medical technology has been developed. By the nineteenth century in America, people gradually adapted to the rational thinking developed in Europe. The scientific knowledge begun to be shared with the entire population through education (Starr 1982:54-55).

In the nineteenth century in the US, people began to perceive scientific knowledge as superior, and they expected physicians to interpret a patient's experience of illness scientifically. Along with the advancement of science, more people preferred to see the world through specialists' view rather than their own view, and the specialists' technical knowledge was validated by their peers in the community. At that time, in the small community, doctors had great power because of the scientific knowledge, which was not as commonly shared with other community members as it is today (Starr 1982:19).

Insurance systems were developed in the mid 19th century, and some physicians contracted to provide all needed care to a family, a plantation, or a particular member of a community, called contract practice. This was the beginning of the insurance system. Physicians attempted to collect their fees based upon credit, quarterly or annually, but they lost unpaid bills. In the 1940s, the state did not intervene in any individual transactions between medical practitioners and their patients, except if there was a contract violation and deterring malpractice (Starr 1982:62-63).

Biomedical technology was improved in the mid 19th century. New technologies, such as diagnostic instruments, the stethoscope, ophthalmoscope, and laryngoscope, were developed, and diagnostic methods changed from superficial techniques to technologically oriented methods for physicians diagnosis. Physicians' diagnosis methods have changed from listening to a patient's experience to analyzing the physical sound and picture of the body. The technological devices reduced the physician's dependence on the patient's statements of symptoms and increased the asymmetry of information (Starr 1982:136)

Bacteriology came in the 1860s and 1870s in the work of Pasteur and Koch. By 1890, etiological method had been developed, and disease classification became specified. Since antiseptics were developed by Lister in 1867, infectious disease began to be controlled, especially in surgical work. By the mid 1890s, laboratory tests had been developed to identify infectious diseases. Immunology was developed, and vaccines against typhoid and tetanus were developed in the early 1900. (A vaccine against rabies by Pasteur, Diphtheria antitoxin in the mid 1890s, Salvarsan (606) for syphilis in 1910 by Paul Ehrlich.) (Starr 1982:135-7). In the late 19th century, surgery became a prestigious field in medicine because of the development of antiseptics (1867) and anesthesia (1846). By the end of the 19th century, the danger of cross-infection in a hospital had been reduced, and by the 1920s, mortality rate had dropped (Starr 1982:156).

After the World War Two, Penicillin and sulfonamides, vaccines were developed, and hygienic measurements were drastically improved. Yellow fever, dysentery, typhos, tetanus, pneumonia, and meningitis were conquered. Malaria was controlled. Disability from venereal disease was drastically reduced by new treatments, and surgery was dramatically improved by blood and plasma transfusion technology (Starr 1982:335).

Since the end of the nineteenth century, scientific knowledge has been widely implemented in biomedicine because medical school education has been established in the US. Harvard University, University of Pennsylvania, and John Hopkins University took the initiative to develop educational programs. John Hopkins computerized medical education as a graduate school work, and combined basic science and hospital medicine. Scientific research and clinical instruction became dominant forces in education. The

influence of John Hopkins expanded all over the country and abroad where graduates played a major part in formulating the character of science based biomedical education and research in the 20th century (Starr 1982:114-6).

Hospitals were reconstituted at the end of the 19th century due to the incorporation of science and medicine. Hospitals and biomedical research institutions were constructed in order to increase scientific knowledge in biomedicine. Before the 19th century, hospitals were not strongly associated with medical practice. The earliest origins of hospitals in preindustrial societies were primarily religious and charitable institutions for feeding the sick. Curing was not the primary focus. Hospitals became a center of medical education and practice between 1870 and 1910. Financing of hospitals was transformed from charities and volunteer gifts to the market system, and health care costs were charged by institutions. The number of hospitals increased, and hospitals competed with each other to increase services, and larger numbers of physicians were employed by the hospitals (Starr 1982:145-6).

As a result of the improvement of science and technology, cause of mortality changed from infectious to chronic disease since the beginning of the 20th century. Consequently, the public became concerned about cancer, heart disease, obesity and neurosis (Starr 1982:336).

On the other hand, development of science and technology in biomedicine has increased health care expenditure. Because of the development of science and technology, and their impact upon the hospital and insurance system, medicine has become more specialized in the post war period. In the early 1930s, specialized programs in medicine

were certified. Hospitals (and their associated physicians) were strongly encouraged to specialize and to develop training programs for specialists. The cost of specialist practices were highly rated by insurance companies under government direction (Starr 1982:356). After the War, hospital oriented specialists, such as surgeons, enjoyed earning higher income than office oriented primary care physicians. Specialists worked fewer hours a week than PCPs, mainly because hospital oriented specialists had a higher proportion of cases covered by insurance. Specialists receive reimbursement directly from insurance companies and other third parties. Since insurance was developed more for hospital services than for office services, physicians were encouraged to enter specialist fields. Specialists were also in high demand by the development of hospitals after the post war period. As a result, hospital costs increased (Starr 1982:358).

Because of highly rated specialists' practices and the indemnity insurance systems, insurance organizations have increased their income by use of highly rated services, such as high technology equipment and specialists. Since 1968, overly specialized treatments and heavily utilized hospitals and beds were criticized and reviewed, and community based doctors and primary care were demanded. In addition, better management and organization of health care were considered (Starr 1982:382).

### **Development of Managed Care**

Since the 1860s, along with development of science and technology, scientific methods and advanced medical devices have been implemented in biomedical practices. US government funding has supported advanced knowledge in medicine, for instance, to expand medical school education, to construct hospitals, and to develop high

technological biomedical equipment. As a result, the government medical expenditures were increased, and reduction of cost in health care has become a primary political agenda (Starr 1982). In 1965, the government started to intervene to improve quality of care, and the law directed the Medicare program. The law stated that hospital medical staff had to organize utilization committees, and monitor appropriate treatment of the elderly. In 1968, to control cost and quality of hospital services, congress directed the formulation of professional standard review organizations (PSROs) and Peer Review Organizations (PROs) (Millenson 1997:187). Explicit guidelines and standards of medical care were developed by the PSROs law. Quantified statistic data were formulated, and stored in computers to identify aspects of the efficiency of care, such as length of hospital stay in the 1970s (Starr 1982: 403).

At the beginning of the 1970s, health care regulation was directed by the state. Thirty-two states formulated laws, which took into account American Medical Association (AMA) Code of Ethics, which attempted to formulate uniform physicians' practices. In the early 1970s, Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and the National Committee for Quality Assurance (NCQA) were organized, and established measurement of medical outcome at hospitals (Millenson 1997;187, Winlensky 1997). Eventually, three powerful services, insurance companies, employers, and the government, were allied against expanding health care providers, and attempted to conduct a state intervention. In the late 70s, reform of health care was started (Starr 1982:388).

During the Nixon administration (beginning 1969), hospital dominated care was reconstituted. The financing system of fee-for-service was reviewed, and the alternative system, the financial incentives rewarded by health maintenance performance, was developed. The new system was named "health maintenance organization" (later simply called HMOs) (Starr 1982:394). Federal regulation in 1973 encouraged HMO to control a broad range of services, such as hospitalization, use of specialists, emergency care, laboratory and diagnostic services, mental health care, and medication (Starr 1982:400).

Kaiser plans influenced development of HMO plans because their subscribers were less frequently hospitalized than the national average in a federal survey conducted in May, 1977, and congress increased federal aid to expand HMO plan enrollment (Starr 1982:415). HMO plans, such as Kaiser Permanente in California, Group Health Cooperative in Seattle, and the Health plan of New York, were developed in the 1930s and 1940s. AMA constantly criticized the development of managed care plans, especially staff model HMOs. Therefore, before the government intervention, health care services were dominated by FFS system (indemnity plans) (Miller and Luft 1994:446).

Managed care evolved in the beginning of the 1980s. There were several incidents which increased managed care subscribers. In the early 80s, an increased number of employers began to enforce their employees to managed care plans because indemnity insurance costs had increased (20 to 30 % per year increase of Blue Cross and Blue Shield plans in 1982 to 1984). Large employers operated their organizations across the country. Thus, this managed care plan expansion occurred across the nation. Indemnity insurance organizations began offering managed care plans to maintain their share in the market. In



addition, many entrepreneurial corporations, most carrying PPO and IPA HMO plans, competed with each other in the market. In the transitional moment from indemnity plans to managed care plans, PPO plans were easily adapted by employers and employees because indemnity and PPO plans are similar, and PPO plans have a wider range of provider networks than IPA HMO plans. Thus, PPO subscribers did not have to change their physicians when they started to enroll PPO plans, and they were also allowed to use non-network services (Miller and Luft 1994:446-7).

The second expansion of managed care plans occurred between 1980 and 1992. Blue Cross/Blue Shield and large commercial insurance companies shifted their carrying of health plans from FFS system to Managed care system or systems organized to use complicated health care delivery networks. In 1984, the commercial carriers premium income of managed care was only 1 % of their total income, but it rose to 25% in 1990. Initially, it was difficult to organize networks for commercial carriers because they had to rapidly establish health delivery networks, such as PPO and IPA HMO to respond to the demand of consumers. In addition, because physicians were not willing to participate in the network; employers chose the lowest price of plans to save on expenditure; since there was almost no consistent data to measure physicians' performance, quality of delivered care decreased (Miller and Luft 1994:450).

However, consumer, provider, and insurance organizations have gradually furnished managed care plans. Employers learned how to increase their consumption power by limiting the choice of health plans, shifting employee premiums to higher cost plans, and distinguishing the coverage of utilized services between in-and-out managed care

networks. Some employers developed coalitions, and demanded insurance organizations to provide the information of cost and quality of care. Large numbers of physicians began to practice in networks and medical groups. Therefore, insurance organizations gradually established efficient networks, and the number of subscribers per physician have increased. Eventually, they formulated a much more sophisticated quality assurance system, physician profiling, information feed back to physician and screening physician based upon their utilization performances. Some PPO plans began to establish concrete fee schedules and fixed daily charges for hospital stays, instead of negotiating discount billing charges, and they also use PCPs to control referring patients to specialized care. This system later developed as POS plans. Increased numbers of IPAs began to enter capitation systems from FFS. Prepaid Group Practice(PGP) transformed from FFS to capitation based HMO plans (Miller and Luft 1994:450-451). Eventually, in New York, Medicaid recipients have been encouraged to enroll in HMO plans since 1992. (Mezey and Lawrence 1995;132). Many hospitals were reconstructed by merging and formulating dominant regional delivery systems which engaged more capitation and risk sharing mechanisms. However, the more managed care has developed, the more patients keep distance from their physicians to save health care cost (Miller and Luft 1994:450-451).

## **Conclusion**

Technocrats (such as insurance, consumer, and health provider organization) have expanded their power since the 1970s in American biomedicine due to the expansion of managed care plans. Power to formulate the health care fee has been transformed from

individual physicians to technocrats. In retrospect, physicians customary formulated a cost of treatment. However, technocrats began to formulate the cost of the treatment. This is because the largest health care consumer organization, the Congress, instigated to reconstruct the entire system due to increased health care expenditure.

Along with the establishment of medical schools and research institutions, scientific discourse has expanded in American biomedicine since the end of the nineteenth century. In order to enhance productivity, technocrats also utilize scientific discourse and assure the quality of care by quantifiable measurement, such as accountability measurement, Continuous Quality Improvement (CQI), and Health Plan Employer Data and Information Set (HEDIS). The discourse identifies relationship between cost of services and the quality of care. Consequently, physicians' paper work has increased, and they have to spend more time on paper work than in their actual treatment of patients. In addition, the use of emergency rooms has been strictly controlled by technocrats to avoid expenditures. In order to protect emergency patients, the Emergency Medical Omnibus Labor Act (EMTALA) law was established.

Contradiction may occur in terms of the inefficiency of rational treatment formulated by technocrats. Both patients and PCPs are increasingly given responsibilities to follow cost effective rational treatment. Responsibility for the inefficiency of the treatment, however, such as not being able to maintain the healthy condition of the body, may be placed on patients and PCPs themselves but not on the irrational perspective of the technocrats' standardized treatment. The actual impact of technocrats upon PCPs and EMPs will be illustrated in the next chapter.

## CHAPTER THREE

### **Conceptions of *Rational Treatment* Between the Primary Care Physician and the Emergency Medicine Practitioner**

PHYSICIAN'S AUTONOMOUS power in clinical decision making has become fragmented since insurance organizations began to formulate managed care networks in the 1970s, and increased number of physicians as well as health care provider organizations have been participating in the networks. Physicians' performances have been controlled by quality control measurements established by government agencies and private organizations. Physicians' treatments have been increasingly controlled by uniformed rational treatment which is constituted by technocrats (insurance and health provider organizations) to improve the productivity of managed care network. Science and technocracy are deeply rooted in the foundation of the managed care system. For instance, physicians' productivity is often scientifically estimated by the balance of the capital revenue of insurance organizations as well as provider organizations.

Cost became a strong measurement to estimate efficiency of physicians' performance. Increased number of Primary Care Physicians (PCPs) have to reinforce the cost associated rational treatment to the consumers in the managed care networks because PCPs' performance, such as patients' referral to specialists as well as administration of their patients to the hospitals, are strictly monitored and controlled by financial incentive contracts with technocrats. For instance, a particular type of contract is called the capitation system which ties a relationship between PCPs' income and their performance. PCPs get financial bonuses by their minimum referral of patients to specialists. In

managed care plans, including HMOs, the more PCPs held accountable to their employers and contractors, the more they attempt to reduce the cost of their treatment, and thus care of the patient is done with a minimum amount of expenditure. The managed care plan also influences patient treatments by Emergency Medicine Practitioners (EMPs). EMPs often have to get approval to carry on a treatment from the patient's PCP if the patient is enrolled in a managed care plan, especially an HMO plan. In other words, the rational treatment is negotiated and resituated in a biomedical discourse between PCPs and EMPs, and consequently distinctive rational treatments become formulated between the different arena of biomedicine.

Since the distinctive rational treatments are constituted in a discourse between the two divisions of biomedicine, PCPs and EMPs, occasionally the difference develops into conflict in the interpretation of the condition of the patient's body. In this chapter, I will first illustrate how the conception of a PCP's rational treatment is associated with symbolism in technocracy. Power is developed by the proof of economical efficiency of a physician's performance, and this power formulates a scientific discourse. Second, I will portray how EMPs' rational treatment is formulated by the epistemology of biomedicine, such as mind/body dichotomous view of the body. In addition, I will depict how EMP's rational treatment is formulated by their experience based intuitive knowledge. Eventually, I will reveal how distinctive rational treatments are formulated in discourse between PCPs and EMPs.

## **Methodology**

My ethnographic data has been gathered through open-ended style interviews with physicians who work in major regional health care provider institutions, hospitals and its affiliated clinics in Corvallis, Eugene, and Albany in the State of Oregon, in the United States. I have conducted the research between April, 1996 and November, 1996. To find informants, I used the regional phone books of Linn/Benton county and Eugene/Springfield in Oregon. The prospective informants have been chosen from the physicians' lists in the yellow pages of the directory. To obtain approval for the interview, I made phone calls to the clinic or the hospital, and conducted interview requests directly to the prospective physicians. During the phone conversation with physicians, I introduced myself and explained my research purpose in as much detail as possible. If the physician accepted my inquiry, I then scheduled an interview. Some of the respondents introduced me to their colleagues as prospective interviewees. Each interview was between thirty minutes and two hours long. The interview site was in the physicians' offices, their own houses, and coffee shops.

The research was conducted in two stages. During the first stage of the interview, I attempted to identify physicians' common interest in their daily practices. I conducted a total of ten interviews in the arena of oncology, radiation oncology, otolaryngology-head and neck surgery, pediatrics, general surgery, obstetrics, gynecology, foot clinic, family medicine, and emergency medicine (including a nurse in an emergency department) between April and August, 1996. In the first stage of the research, I discovered that many of them, especially emergency medicine practitioners (EMPs), are having a difficult time

adapting to a transforming US managed care system. In particular, EMPs have perceived that their power in their clinical decision making has been taken away by managed care plans. Therefore, I extended my research in an effort to compare EMPs and primary care physicians (PCPs)' transforming meanings of biomedical treatment as well as perceived power differences between the two fields.

In the second stage of the research, I chose six PCPs and four EMPs. The method to choose informants were the same as the first stage of the research, and I only chose the interviewees who agreed with my research purpose in the initial phone conversation. The ethnographic research emphasized the following question: What is the power relationship among PCPs, EMPs, and medical directors of HMOs, and what are their respective ideals of treatment?

This study does not aim to prove any facts scientifically, but rather it is directed to interpret diverse epistemology in physicians' discourse. Thus, I do not argue that my respondents' views of managed care represent the whole population of PCPs and EMPs in managed care plans. To eliminate legitimacy brought by scientific studies, the interview was unstructured. I display actual statements of the respondents in the text to expose any unforeseen contexts of the statement formulated by their speech acts. However, it is difficult to eliminate my ethnographic authority to organize the data in a process of text construction. Even though I attempt not to constitute a stereotypical image of the physician's conceptions, I might formulate an uniform image of these conceptions. To protect respondents' rights, the name of physicians are falsely created. Primary Care

Practitioners are Mike, Tom, Jane, Ken, Anne, and Jim. Emergency medicine practitioners are Mark, Richard, Chris, and John.

### **Physicians' Background Information and Interview Setting**

Six primary care physicians (PCPs), Anne, Mike, Jane, Tom, Ken, and Jim, as well as four emergency medicine practitioners (EMPs), Mark, Richard, Chris, and John, participated in my interview project. PCPs all work at satellite clinics of a major regional hospital, and EMPs work at major regional hospitals. In this section, I will introduce their family backgrounds, their motivations in becoming physicians, and the interview settings.

#### ***Primary Care Practitioners***

##### **Anne**

Anne is forty five years old, and single. She is from Wisconsin. She was born on a dairy farm in a rural area of Wisconsin. Her father was a dairy farmer who also worked in a bank, and the whole family engaged in farming. Her mother worked in a courthouse. Her parents are now retired. Anne is a friendly, nice person, and I met her at her office May 5, 1996. I spent approximately an hour interviewing her. I waited for her in the clinic's waiting room because she was busy working when I arrived there.

Anne is an internal medicine specialist in Philomath. Her patients are mostly adults, and she takes care of their general medical problems. She meets patients at the clinic, in a hospital (her clinic is a satellite clinic of the regional private hospital) as well as in a nursing home. She has been working at the clinic for 6 years. Previously, she practiced in Wisconsin.



Anne was motivated to become a physician because she was influenced by her best friend's father who was a family doctor. She admired him as a loyal model to work with people because he used science to solve complex health problems of his patients. She would choose to become a physician if she could do her career again.

### **Mike**

Mike is forty nine years old. His father is a retired air traffic controller and his mother is a retired homemaker. He has two brothers. He was very friendly and seems very confident in being a primary care physician. The interview was conducted in his office, October 23, 1996. After the interview, he introduced me to two prospective interviewees, Tom and Jim. Because he was willing to talk a lot, and provide valuable information, I was very happy after the interview. He told me that he is willing to participate in any further interviews if it is necessary.

Mike is a family medicine practitioner in Philomath, and he has been practicing for nineteen years in the same clinic. He attended college and medical school in Portland, Oregon. His post graduate education was completed in Tucson, Arizona. He worked for a public health service in Grand Query, Washington for three years. He has been in Oregon since 1977.

Mike initially wanted to become a church minister because he wanted to work with people. But during his college education, he recognized that he was good at science, such as biology and chemistry. Thus, he decided to go to medical school because he could use his science talent to practice medicine. In medical school, he decided to go into family

practice. This is because he could take care of a wide range of people, such as an entire family from infants to grandparents, and he could relate to the family members over an extended period of time. Mike would choose to become a physician if he could go back to a college. He has been happy since he started to practice in Philomath nineteen years ago. He enjoys his job, particularly meeting with his patients.

### **Jane**

Jane is 28 years old, and was born in 1967 in Philadelphia, Pennsylvania. Her father is a pathologist, and her mother is a psychiatrist. She is single. She seems like a warm person, and is interested in medical ethics as well as medical anthropology. She traveled to Israel and Guatemala, and lived in Spain for a year. Initially I contacted a colleague of Jane to participate in my study, however Jane heard about my request and volunteered to be interviewed. The interview was conducted at a coffee shop in Eugene on October 26, 1996. She brought some newspaper and medical journal articles relating to managed care issues. She also brought a paper which defines terminology of managed care systems. After the interview, she told me about her colleague's work ethic, and that he does not want to spend more than 10 minutes with each patient. She disagrees with his principle. She gave me her address, and asked me to show her my thesis when it is completed.

After receiving a bachelor's degree from Wellesley college, she attended medical school where she graduated in 1993. Her residency of family practice was completed in June 1996, in Tucson, Arizona. She started her practice on August 1, 1996.

Jane was motivated to become a physician because of the positive impact they have on a community. Her father is not only a pathologist but also worked for the city of Philadelphia in the fire department, the police department, and a heroin clinic. Because of this, she had a chance to go to a jail and talk to the prisoners at an early age. She chose to become a family practitioner because she was interested in interacting and helping all different kinds of people. Jane would choose medicine if she could go back to college.

### **Tom**

Tom is married, and has two children, nine and twelve. He is the second oldest of seven children. Most of his family members live on the East coast of the US. His father is an immigrant from Scotland. He was the fire chief in the New York city fire department. His mother was a homemaker. Both of them have died. He seems like a very kind and warm person, and is very concerned about his patients. The interview took place on October 28, 1996, and was conducted in his office after office hours because he was very busy during his work. Before the interview, he asked me some questions about what I am studying. He is very talkative and willing to share his experience. Although I attempted to obtain specific information, his response was very broad and implicit. Therefore, I had to ask similar questions several times to specify his answers.

Tom is a family medicine practitioner in Corvallis. He graduated from Oregon State University (OSU) in 1975 with a masters degree in Oceanography. He worked as a research assistant in the Oceanography department at OSU for about 10 years. After he graduated from Oregon Health Science University (OHSU) in 1990, he did a three year

residency training at OHSU in family practice. He moved to Oregon in 1972, and he has been in Corvallis for three and half years..

Tom applied to medical school in 1970 but he was not accepted. There was intense competition to get into medical school because it was a way to stay out of the Vietnam War. When he was not accepted to medical school, he promised his father that someday he would pursue his dream to be a physician. After he worked as a medical technologist for two years doing laboratory testing, blood tests and bacteriology tests, he went to graduate school to study Oceanography because it was his second interest. When he was thirty two or thirty three years old, he reapplied to medical school. He chose family medicine because he likes to interact with people. However, right now, Tom is not sure if he would choose medicine if he could go back to college because tuition of the high cost of tuition. He also does not like the fact that CEOs of managed care organizations make more money than physicians. He feels that it is wrong that health care is becoming a business, and that CEOs earn such a enormous amount of money from patients' payments.

### **Ken**

Ken was born in 1961. He has been married for seven years and has one child. His mother and brother are both lawyers, and his father is a businessman in a small computer company. He is very energetic, and he looks very warm and seems concerned about his patients. He enjoyed the interview, and he was willing to talk with me. He told me that he is willing to participate in follow up interviews. I enjoyed this interview very much. The interview was conducted at his office after work in Eugene on November 6, 1996.

Ken is a family practitioner. He got his bachelor's degree from the University of California, San Diego in 1983, and he took a year off to do research in behavioral neurobiology. After he graduated from Chicago medical school in 1988, he did an internship at San Pedro peninsula hospital. His residency was completed at Kaiser Parmanente hospital in 1991. He passed his medical boards in 1991. He stayed at Kaiser for a couple of years to do Cairo practice and helped residency programs as a part time teacher. In 1993, he moved to Eugene. He is a managed care committee chairman of his provider group as well as a chairman of the Cairo practice department medical group in the hospital.

Ken wanted to be a doctor when he was in the fifth or seventh grade, but could not identify any strong reasons as to why he decided on becoming a physician. His friends pushed him to be a physician because he studied well in his secondary school education. At his college, he volunteered his time at a hospital. He liked that environment. Ken would definitely chose to become a physician if he could go back to college. He believes that the decision he made was very timely and appropriate. He likes working in family medicine.

### **Jim**

Jim was born and grew up in Iowa. He is the youngest of four children. His father was a dentist, and practiced until he was eighty years old. He is still alive. His mother is also college educated, and is alive. He was very busy, and he was concerned about the amount of time the interview would take. The interview took place on November 8, 1996 and

was conducted at his office in Albany during his lunch hour. The interview appointment was delayed because he was treating a patient. His answers were relatively short.

Jim is a family practitioner. His undergraduate major was physics. He graduated from the University of Iowa medical school in 1981. He did his residency in Pennsylvania, and he worked in the residency hospital for almost 5 years. While he practiced in Pennsylvania, he also worked for HMOs as an assistant medical director. He was in charge of 9,000 to 10,000 enrollees of a health plan for about 3 or 4 years. He gave up working for HMOs because it required him to devote a lot of his time to his work. He also noticed a contradiction of HMOs' principle, such as their financial as well as ethical approach to provide health care. He came to Oregon in 1995.

Jim was motivated to become a physician because his best friend encouraged him to be a doctor when he was in high school. At that time, he was also thinking to become an engineer. Thus, he studied physics until his future plan matured. The study of physics finally encouraged him to study medicine. He chose family medicine because he liked to communicate with people, and he could implement his scientific knowledge in his daily practices. He also liked to deal with diverse age groups of people from children to the elderly. Jim is not sure that he would chose medicine if he could go back to college. (This is not because HMOs and some other bureaucracy have expanded in medicine.) If he did decide upon medical school, he would become a family doctor. However, right now, he does not want to continue to practice medicine. He is planning to stop practicing medicine within the next ten years because he would like to challenge himself and expand his possibilities. He is thinking of going back to school to study engineering.

## *Emergency Medicine Practitioners*

### **Mark**

Mark grew up in Los Angeles. His father works as a fireman, and is the fire chief for the Los Angeles fire department. His mother stays at home. Mark is a very friendly and talkative person. He is a colleague of a nurse who is a respondent of my first stage of the interview, and she introduced Mark to me. The interview was conducted at his house on May 10, 1996. The interview was supposed to finish within an hour, but we talked about one and half hours. Mark was willing to participate in follow up interviews. After the interview, he suggested that I contact Richard, one of his colleagues, to conduct an interview.

Mark completed his undergraduate degree in biochemistry at the University of California, Los Angeles. After he graduated from medical school at the University of California, San Francisco in 1977, he did a one year internship in internal medicine at Veterans administration hospital, California. From 1979 to 1984, he was a general practitioner in Lincoln City on the Oregon coast. He went back to the residency program for two years to specialize in emergency medicine. Since 1986, he has been working as a full time emergency medicine practitioner. He has been in Corvallis for six years with his family, and working in the emergency department of a regional hospital. There are six full time emergency specialists there.

The first time that Mark thought about becoming a physician was when his grandfather died of a heart attack. It happened when he was eight years old. He thought that if he was a doctor he could have helped him. Throughout his school, the memory

influenced and directed him to become a physician. Eventually, he became a general practitioner, and began to work in Lincoln city. However, because there were not any emergency specialists, Mark had to treat a lot of emergency patients. He enjoyed the intense and challenging experience of treating very sick patients who needed the most acute and intense medical care. Finally, he decided to become an emergency practitioner. Even though he has been highly motivated to treat his patients, he would not choose to become a physician if he could go back to a college. This is because medicine has drastically changed in the US. Nowadays, he has to focus less upon patient care because of increasing bureaucracy in his work.

### **Chris**

Chris was born in 1946 in Oklahoma, and grew up there. He has an older brother and a younger sister. His father ran a company removing oil field pipes from the ground after the wells no longer produced oil. Chris used to work in the oil field for his father during the summer. His mother was a homemaker. He had been married for seventeen years to his first wife until 1983, and they had two children. He has been married to his second wife since 1990. His wife has two children. Chris is a very kind and warm person. He was also interested to listen to my self introduction. The interview was conducted in a coffee shop in Corvallis on August 29, 1996. He was willing to talk and enjoyed the meeting. He also allowed me to do follow up interviews.

After he graduated from the University of Oklahoma with a degree in engineering and sociology, he went to the University of Oklahoma college of medicine when he was about



twenty five. During his internal medicine residency program, he decided to practice emergency medicine. He worked as an emergency medicine physician for two years in Oklahoma. He came to Corvallis in 1979, and he started to work as an emergency medicine physician.

Chris has become a physician by the influence of his first wife who studied nursing. Through her he met some doctors that she trained with at a medical center. In addition, he realized that he was no longer interested in engineering. It took several years to decide to go to medical school. He was initially interested in internal medicine because he likes to interact with people. However, he soon lost interest in becoming an internist because the patients are exclusively adults and internists cannot conduct surgery. Later he became interested in emergency medicine because of his work experience during his rotation practice program in medical school. He was excited to see patients in the emergency room because he cannot predict what kind of patients are coming next, and he has to think and practice within a limited amount of time. Chris would chose medicine if he could go back to college. He thinks that his career goal is already determined. He has been very happy in what he has been doing.

### **Richard**

Richard was born in 1951. His parents were subsistent farmers. In the 1930s during the depression, his family moved from Oklahoma to the Central Valley of California, outside of Fresno, California. He grew up on a twenty acre farm, where his family raised twenty cows, harvested grapes and cotton. Neither of his parents were college educated. He has

two brothers and two sisters. He is the youngest in his family. He was a very warm person and very willing to talk. He ran his own free private clinic where he treats patients without any insurance. He is a volunteer medical director of that clinic. The interview was conducted at his favorite coffee shop on September 3, 1996. He was willing to talk about his experiences, and he enjoyed the interview. Mark is one of his partners in the emergency department.

Richard went to four or five different colleges. Because he liked to travel, he worked through college in order to earn money. He was not interested in natural science, and he majored in political science and history. He started to work in an emergency department of a hospital in 1971, and simultaneously taught at a high school. After numerous jobs, he decided to go to medical school at the age of twenty nine. He graduated from medical college in Milwaukee, Wisconsin in 1981. He completed his training at Harlem hospital, and Bronx municipal hospital in New York City. After training, he lived in Granada, West Indies until the US invaded there in 1983. He moved to Corvallis in 1988.

Richard could not decide on his future, therefore, roamed around, did a lot of different kinds of jobs, and went to different colleges. At that time, his father became very sick, and eventually died in 1971. Richard spent two months in a hospital to take care of him. It was an eye opening experience for him, and realized how people worked in a hospital. He had never seen the practice of medicine until that experience. Therefore, he began to work in an emergency department. The organized emergency medicine system was not completely established in the US hospital at that time. Many doctors trained him how to handle the emergency medicine practice. Initially, Richard did not intend to

become a physician. After seven years of experience, he decided to become an emergency practitioner.

### **John**

John was born in Portland, Oregon in 1954. His mother is a legal secretary. His father works in the advertisement industry. He has a brother and a sister. John is not as friendly as other physicians whom I have interviewed. He seems very busy. He gave me a typed information of managed care. The interview was conducted at his office of the emergency department on November 1, 1996. The interview was very short (about 30 minutes) because he did not talk much.

John is a medical director of the emergency room in one of major hospitals of Eugene. He went to the University of Oregon, and medical school at the University of Oregon in Portland (later it became Oregon Health and Sciences University). He did residency programs of emergency medicine and internal medicine in California. He has been working in the emergency department since 1983.

John was motivated to become a physician because he likes to help people. He would choose emergency medicine because he is able to deal with different kinds of problems. He would chose medicine again if he could go back to college.

## **Distinctive Conceptions of Rational Treatment and the Patient's Body Between PCPs and EMPs**

### ***Primary Care Physicians***

Primary Care Physicians (PCPs) have broader knowledge in medicine than specialists, and are able to take care of the whole scope of medical practice. To sum up the physician's background information, PCPs' motivation to become physicians are that they like to communicate and help people. A PCP's job lies in trying to identify what is normal and abnormal in the state of a person's body. Mike states that PCPs normally treat the normal body of their patients. Along with expansion of managed care plans, treatment has been transformed from disease classification to preventive medicine. PCPs' roles are to prevent disease on the patient's body (See chapter two). For instance, Ken argues that PCPs attempt to find an abnormal part in their patients' body at an early stage, and sometimes they refer the patients to specialists. Tom states that they attempt to keep their patients away from tobacco, alcohol, and obesity, and keep their patient's body in a good shape. He also reports that PCPs perceive the body as a whole which includes the patient's family members. PCPs see all ages of the population at large, and often across the various generations of a family. PCPs see all the family member's bodies and follow the history and health conditions. Therefore, their relationship with patients are longer than those typically experienced by specialists. The PCPs of my respondents individually elaborate diverse perspectives of the patient body as well as their ideal treatment of the body.

A patient's body is viewed as a valuable commodity, and the body needs maintenance to keep high standard of health conditions. PCPs have to prevent the healthy body from

abnormal conditions. Mike identified the body which PCPs' normally treat, and he distinguishes his patient's body condition from the conception held by a specialist. "Specialists and primary care physicians see their patients differently. PCPs see mostly normal people. PCPs refer to specialists when they think that the patients does not look normal." Tom portrays the significance identifying normal and abnormal body condition as biomedical, and physical conditions of the body influence patients' mind.

All things could go wrong from a human and medical perspective. However, we ourselves, as organisms, are designed to survive. We are self collecting natures, and are trying to survive. My job is trying to identify what is normal and what is not, including reactions to stress, to diseases, to illness, to death in the family, because all of these things can impact how a person feels.

Ken describes that managed care plans emphasis upon the preventive medicine. He illustrated how well the *ideal* treatment, or a newly implemented scientific treatment of the body, is coordinated to monitor body conditions. Ken argues that managed care focuses upon prevention of chronic diseases. "Managed care tends to pay for routine care and physical exams very well. Usually it is good about covering physical exams and routine care, and health maintenance things, designed to keep yourself healthy." McGlynn (1997) supported Ken's argument that quality control principle of managed care, or capitation system, will provide all needed care to prevent chronic disease to the enrolled population in return for a set fee. The efficiency of quality of care is directed by guideline, and the physicians' treatment is monitored by insurance organizations as well as provider organizations (McGlynn 1997:12) (See Chap two).

From the PCPs' perspective of preventive medicine, they do not only perceive a patient body as an individual component but also as a part in a whole family. To maintain

the body in healthy condition they have to know the entire disease history of the family. Tom distinguishes the distinction between biomedicine, especially family medicine, and natural science. He makes a comparison between his experience in these two field (His previous profession was oceanography researcher).

My view of what is right in medicine is dealing with the whole person. That includes the whole person from birth to death. In my educational career, I focused on being a reductionist in terms of science methodology and research technology. This is always a smaller and smaller area to focus on. I am not satisfied with studying only one body part or one particular problem. My satisfaction lies in seeing how that affects a whole person. Some of that view comes from my ecological training where what ecology looks at is how a given portion of nature affects the whole environment. This is much different from the reductionist research approach, looking at a smaller and smaller problem. (Tom's statement is associated with a epistemology of science which I discussed in chapter one.)

Tom illustrates PCPs' *ideal* treatment emphasizes preventive medicine, and elaborates upon the significance of seeing the body as a unit in a whole family rather than as an individual components.

We take a detailed medical history of the patients and their family, see if we can identify any genetic concerns, and try to address whatever concerns, or symptoms the patients might be having. Family history will give an indications of genetic problems such as heart disease or high cholesterol.

Tom also talks about on the importance of identifying the parents' habit of dieting, and determines the impact on family dieting.

The three most common causes of preventable premature death in this country are tobacco, alcohol, and obesity. Therefore, these are three areas that I try to impact. I obtain a history on a given patient in terms of whether they are using tobacco, or alcohol and if this use is a problem. I counsel my patients on weight and weight loss and how to develop a more healthy life style, in an attempt to have them see that it is possible to be healthier next year than they are this year.

He argues that this attempt will maintain a high standard of health for the next generation.

On the contrary, I argue that managed care reconstituted epistemology of biomedicine, and a patient's body is perceived as a industrial commodity in a production line. In other words, managed care networks constituted by insurance organizations (See Chap two) have become somewhat like manufacturing production factories. Each patient is treated as if they were a machine part which is placed on the conveyor-belt of a production line. PCPs have become manual laborers, and the body of their patients are perceived as products on a health production line. PCPs have to follow a principle of technocracy, and are driven by productivity enhancement and quality control, which is regulated by the production guideline of managed care plans (See chapter two). Therefore PCPs have to follow a production guideline which is designed by their contractor (employer), provider, as well as insurance organizations. The guideline is based upon a principle of productivity in technocracy, which stresses the achievement of the best possible input/output equation. It directs PCPs to improve their productivity, seeing as many patients as possible within a limited amount of time. The numbers of patients that each physicians have to see a day is regulated by the productivity guideline. As a result, PCPs make enormous efforts to share their time effectively with each patient.(Kovner 1995, Enthoven 1997, McGlynn 1997).

Jane illustrated the detailed impact of the rational ideal formulated by the productivity guideline of managed care plans in their daily practice. Jane has just started to work for

the health care provider group. She argued that managed care is not an ideal health care for her patients.

The trends now is toward productivity. So PCPs have to see more and more patients in a shorter and shorter time, then my group is able to charge more and more money per minute. HMOs based managed care system do not help physicians to explain more of the things to patients because of productivity guidelines. If you are far below a certain amount of patients per a day, then you will get less salary. So, most doctors see 27 patients in a six hour day. That is not much time for each patient. If I have to see so many patients, the quality will go down. Then, if you want to provide the same amount of quality, you have to work through lunch, or work extra hours.

As a manual labor of production line, PCPs' work schedules are very tight. Ken described overview of his work schedule. "I take care of 25 to 33 patients a day, not including shots, or injection. It is pretty full schedule. During lunch, I take one hour to one and half hour break. I work from 7:30 am to 5:30 to 6:00 every day. I have one day off in a week." Ken also talks about the nature of managed care less emphasis upon taking into account patient's experience of illness because its ideal treatment has to be carried on within a limited amount of time.

Getting the nuances of the patients' conditions, anxiety, and depression which primary care does not emphasize. Managed care plans do not stress things like how you feel, or what makes the illness significant to you. For instance, the anxiety of having a cold is different in each person. Some people do not worry about a cold, some people are very stressed out about catching a cold.

Ken also explained his technique to treat his patients within a limited amount of time.



There is pressure to see lots of patients under a managed care plans, especially capitation system. There are techniques people feel like money is worth that they come in even you only spend 10 minutes with them. If I walk in the room and touch the patients and shake their hand, say "Hi, and How are you doing?" and look into their eyes, sit down instead of standing there. Give them 30 to 90 second tell me what is wrong. No yes or no questions, such as "Does your nose run?" If I give them open ended questions, and do not look my watch, they are going to think that they are spending more time than they really spend in the office. There is a book *15 minute or hour, how you make somebody think*. This happens to be a communication. The training we have got is how you can make people get the benefits of spending more time with them in a short period of time. There are techniques that we learn and are training make people feel comfortable even within a short period of time. Especially, managed care in Kaiser where I came from, is very careful teaching us those techniques. Doctors who are trained in a old style may not learn those basic thing. Those patients may feel rushed. There is only one or two doctors in this group see more patients than I do.

Based upon the impact of science and technocracy in managed care plans, the condition of a patient is processed by technocratic methods, and the information of each symptom of the body is coded and stored in a central processing unit in the insurance company's main computer system. Therefore, after the diagnosis is completed, the body condition is labeled with numbers as if the condition of manufacture products are monitored by a host computer (Starr 1997:100). The code for the diagnosis is devised by each insurance company as a proof, and which will eventually formulate power in scientific discourse to identify productivity of technocrats. This bureaucratic requirement has increased physicians' paper work, and keep them away from their primary mission of patient care (Shlesiger, Gray, and Perreira 1997:108-109) (See Chap two). As a result, the patient's body is not only seen as a product on a conveyor belt in a factory, but also as a complete commodity labeled by a code to identify the product condition. Jane critically explained the process of coding.

When the patients come, we have to code their diagnosis. That is a little bit irritating. There is a big book, this thick [She showed me a book]. We have to figure out “OK, sore throat, 780.23.” There is a code for the diagnosis, and then the sheet goes to a different department where they send it to a insurance company. But it is a little irritating because there is so much detail you have to keep track of. There is a code number for why somebody falls and slips over a carpet or falls over a dog. Everything is in this book. You have to look it up and say “OK, you are coming because you fell over your dog. Well, that is 23467.” You know, it is so stupid. It used to be more simple than this. I think this is wasting money for too much detail.

Jane’s critical statement reminds one of Lyotard’s argument which I elaborated upon in the first chapter of this thesis. The argument is that the idea of domination over a system decreases the productivity of its function, and asphyxiates the operation of production.

### ***Emergency Medicine Practitioners***

The arena of Emergency Medicine Practitioners (EMP) is a technically intensive and challenging part of medicine because of its mandate to care for very sick patients. The patient’s body needs the most acute and intensive care. For instance, it is affected by car accidents, industrial accidents, hunting accidents, and heart attacks. Every respondents of my interview emphasized that EMPs’ must be able to deal with uncertainty because they cannot predict the body condition of their patient everyday. Any patient with any problem from anywhere on the earth could walk into the emergency room at any minute. EMPs’ attempts to figure out the complexity of the problems typical of the patients they treat.

Each EMP who I interviewed illustrated diverse perspectives of their *preferred* treatment as well as conditions of their patients’ bodies. To sum up *preferred* treatment stated by each respondent an EMP attempts to objectify the patient’s body from their mind, and see the body as a mathematical model during the treatment. This is because the

body which the EMP normally treats needs acute and intensive care, therefore, they try not to involve their emotion. In other words, time is the most important element in their *preferred* treatment, and they do not have time to contemplate how the patient examines the disaster which has just happened to them. Mark explained his interaction with a patient's body in his daily practice. "You have to stand back in your mind and be able to not (emotionally) become so involved in their misery and pain. Otherwise, you cannot think clearly. It is almost cold, calculating objectively on how to treat patients." This Cartesian context of the mind/body dichotomy is discussed in the chapter one of this thesis. However, Mark argues that it is not easy to detach the mind from the body. He reviewed his experience and portrays how he has become used to objectify his mind from the patient's body.

I have learned it all the way along the line, during medical school, residency, and the specialization period. I have still continued to learn to be objective as a physician in my practice. In medical school, there are not any classes for emotional control. But when I first walked into basic anatomy class, and I cut a cadaver, dead human, I encountered that I needed to control my mind. It is not a normal thing to cut up human bodies. In the very first day of medical school, I learned that I was going to have to control my emotional response to other humans whether they are living or dead. Some students discovered very early on in medical school that they could not control emotion by themselves. They either got out of medical school or went into a specialty that allowed them to not have to deal with patients, pathology or radiology.

The first day as an EMP leaves a strong impression on their mind. Richard illustrates his first day's experience in an emergency room. The incident evoked his memory and it still strongly remains in his mind as a dramatized event. A terror developed in his mind because he was uncertain as to what kind of catastrophe he was going to encounter on any given day.

I can remember the very first day that I worked in the emergency department. I was so afraid because I did not know what I was going to see. Am I going to be able to handle this? Then, I was told to go to help a guy with a chain saw who really cut up his arm. I remember thinking " Oh my god! I have to look at that arm and everything." But very quickly, like within seconds to minutes, it is a kind of like, I forgot about all that, you know, it is like I have a job to do. To do my job is to get back to clean, you know, get cleaned up that all that goop and saw. So suddenly, I just focused on what I am doing, and what I have got to do.

Once EMPs develop the skills to objectify the patient's body, these skills eventually mature into a specialized technique to rationally repair the acute condition of the body, as if solving the problem of a mathematical equation. Richard and Chris illustrate a technique relating to how they treat damaged body parts: they calmly set priorities from the most life-threatening problem to minor problems, and then repair each part in order. In this process, they attempt to separate the patient's body from both his and his patient's mind, and attempt to discount the patient's emotional condition. Even after treatment, Chris tries to remain emotionally detached during his work hours. Chris's preferred treatment is based upon both scientific and intuitive knowledge.

Let's say for example someone comes with lots of injuries, and the injuries are very severe, potentially he may die. Then your focus becomes a set of priorities for dealing with the most immediately life threatening conditions first. Once you get that dealt with, deal with the second most immediately life threatening problem, and then you deal with the third, and you deal with the fourth, and fifth, and you go down, and you deal with them. And then you recheck that, make sure that what you have done is still effective, and you go through a process and the patient either survives or they do not, and in that process, your focus is in dealing with the problems as they arrive. During that time, kind of, you are so busy, and you put the other emotional kind of human issues beside.

Chris seems to use his intuitive knowledge to prioritized "the most immediately life threatening problem." This is because the knowledge requires Chris's clinical experience

to ascertain the priority of the treatment. His statement also illustrates his view of the patient's body, "you put the other emotional kind of human issues beside" which would be constituted by scientific epistemology.

Richard also states his *preferred* treatment of the patients' body. He emphasizes the significance of time in his treatment. He arranges the order of the treatment in order to save time.

So, anyhow, I am an emergency medicine practitioner because I like the quick pace. I like to have to think quick, and I consider myself somebody who has a good quick mind, but I am not brilliant. You know, when I see somebody come in, I do not think of the 15 different things they might have, I think of 3 different things that they have because those 3 are the ones, that if missed, would hurt them very badly. I do not think of all of those other obscure things, somebody else can figure that out later.

It is impossible that EMPs pursue complete treatment which specialists have developed in each specialized arena of biomedicine because the acute condition of the patients' body has to be treated within a limited amount of time. There are always differences between EMPs' and other specialists' treatment. Thus, EMPs have to always review the quality of their treatment. They often have to rely more upon their intuitive knowledge which is developed through the course of their experience than other specialists. Therefore, it takes time to accept the condition of the repaired body which is ideally treated from an emergency medicine perspective, but not completely followed by a scientifically legitimate treatment. Richard and Chris demonstrate the difficulty of accepting their treatment as a perfectly *preferred* treatment. Richard attempts to do the best in his treatment even though he is not always able to follow "the latest discoveries" of biomedical science based treatment. His intuitive, or hermeneutic, sense directs him to fix

acute condition of a patients' body within a limited amount of time even though it is difficult to prove it as scientifically efficient.

... You know, I can do the best I can. As a person things don't always work out the way you like it to on your account because you are handling all the power. This is the way it is. It does not mean you shouldn't do your very best to keep up with medicine, you know, in the latest discoveries. But you should pick up some kind of balance.

Chris's statement illustrates the difficulty in transforming the information of the efficiency of his treatment in a explicit scientific discourse because the treatment is formulated by his intuitive knowledge. He can only feel the efficiency, but he is not able to explicitly explain the efficiency in a discourse. Chris's statement reminds that Lyotard's argument in chapter one. Lyotard states that the scientific knowledge is associated with technology, which directs our utilization of materials. Intuitive knowledge is a hermeneutic kind of knowledge and it will reflect directly or indirectly on values or aims (Lyotard 1993[1979]:14). Chris also shows that it takes time to develop the ideal treatment which is the combination of scientific as well as intuitive knowledge.

After it [the treatment] is all over, then emotional part of it, you become aware of, and you try to put it aside if you can, at least until you are off duty in your home, and you can kind of think about it and feel those feelings. It is a kind of processed feeling you know. And most often, I think, especially over time as you become more mature and a little bit more philosophical about life, you can accept that if you have done the best you can do for the patient, then that is all you can do, you know. And there is a degree of acceptance that comes about.

An EMP's treatment requires a certain amount of skill to complete their work within a short period of time. Therefore, their concept of the patient's body excludes the background of the body, such as the health of the other members of the patient's family - family disease history or genetic disease history. In other words, the PCP perceives the

patient's body as an individual unit not as a part of the whole family body. For instance, Richard depicts that he is not interested in having a long time relationship with his emergency patients.

You know, in an emergency department, an arm is real hurt, and I get them kind of patched up, and send them on to somebody else. You know, up in the hospital or out the door. I am not really that interested in having a long continuous relationship with a whole bunch of people. You know, I just as soon take care of them, and go from there.

Richard's relationship with the acute conditions of emergency medicine patients illustrates a contrast with the primary care physician's long term relationship which takes into account the disease history of the whole family. John also mentioned a relationship between a patient's body and the emergency medicine practitioners.

EMPs like acute problems, they like to fix something fast, or fix a problem fast. They do not like to have to deal with problems that last for a long time. They would rather take care of something right now, not waiting to see a patient many times to fix a problem.

Throughout an experience, EMP becomes aware of the patient's body which is attached to society, and the patient's condition is influenced by socioeconomic factors. This is because EMPs have more opportunity to see members of the lower socioeconomic class than any other specialists. John explained to me that patients who come to an emergency room are protected by the EMTALA law (See chapter two). It states that everybody who comes to an emergency room must be taken care of. Therefore, emergency rooms are the only place where anybody can go and get taken care of in the US health care system. John depicts the perspective of patients in an emergency room in the US. "So, a lot of people who do not have insurance and cannot see any other

doctors come to the emergency room. Some of them do not pay their bill. Some of them try to pay the bill, but they cannot. So, a lot of emergency rooms in a lot of hospitals give free care, more free care than any other specialty." Chris illustrate how his view of those patients has been transformed through his experience.

... if you want to waste your life away, then that is OK, it is your choice. I do not think it is a very good choice. For example, I see patients, let's say alcoholics, you know, they bomb and live on the street and are drunk everyday. That is all they do. Well, a long time ago, they used to bother me a lot, but now I am more compassionate to those people because I think understanding, you know, maybe there is something about being an alcoholic and being a burn, there is something about that kind of life time that they need, that there is something that can be learned in that. And it does not mean that, as a spiritual being they have any more or less than I have, that I am not any greater than they are. Just because they have a life time of being a burn. That is like that. A sending like the brightest part comes from the darkest part, something like that. So I think that this philosophy allowed me to be more compassion to people, and at the same time to realize that your reasons for people to choose the life time that they choose are much more mysterious than I can know. And the reason for their particular life style and problems and questions that they are attempting to answer by the way they live their life time is something that is kind of mysterious and I cannot really make a judgment about that. This allows me, I think, to be less judgmental. I accept. I try to give them good care, give them good information, help them make better decisions, help them to be healthier than what they want. But if they do not want that, I can respect that, you know. I do not have to judge them.

Chris stated that treatment of emergency medicine contains scientific and artistic nature, or blend of scientific and intuitive knowledge. He likes to blend scientific and intuitive knowledge in order to solve complex physical as well as emotional problem of patients. EMPs require certain skills of communication to get trust from the patient within a short period of time.



... I liked the feeling that there is a nice blend of art and science. There was a scientific background, but also there is a certain art to communicating with people and developing a sense of trust with people, and certain intuition, kind of figure out what was wrong with him. That I still find really interesting and I still find kind of challenging. In an emergency room, the patient that you see, you may have never seen before. And they come and do not have any previous interaction. It is kind of fun to try to get to know quickly and how to figure out what is going on with them. I like that part. I like using science, but also like this kind of a mystery of trying to figure out complex problems, and decide what is to be done.

Richard also describes that emergency medicine contains a nature of art and science. He believes that many portions of emergency medicine, especially communication with patients, contains artistic perspective.

I am not a research type of person at all. We are probably just the opposite from each other you know. Who knows? But, like science was never my thing, I am much more for people, but not for science. But I do it because I need it. Medicine is not a science, you know, it is an art, really it is an art, I think. Oh, every part from interviewing the patients, getting to know, making a patient feel comfortable with your presence are artistic. I mean, you have to be involved with their most intimate problems. You know, when their loved one dies, or they are dying, or it's not always that dramatic. You know, you are willing to keep that in confidence, and also convey that you are going to do the best thing that you can. Then, you can get trust from them and they are going to feel better. You know, you have to be able to communicate with them.

However, managed care gradually involves emergency medicine practice, and their preferred treatment is increasingly influenced by cost containment principle of managed care plans. John thinks the practice is harder now than before because HMOs' financial pressures on practice. "HMOs sometimes do not pay the bill, or they attempt to keep physicians from taking care of patients." Mark also talks about bureaucratic expansion into his practice.

Medicine has changed so much in the US in the past 10 years. The way that the patients get medical care has gone through very significant changes with Health Maintenance Organizations (HMOs), insurance companies, and involvement of government. There is much more paper work, many more constrain and restrictions on physicians. It is less fun. It used be more fun. Physicians have to pay more attention to other things. But now you have to pay so much attention to the paper work and the finances in the insurance companies. It is much of the problem. It is not as rewarding.

In the next section of this chapter, I will further illustrate that managed care plans formulate distinctive contexts of rational treatment between PCPs and EMPs.

### **Discursive Power Relationship Between PCPs and EMPs in Reinterpretation of Ideal/Preferred Treatment**

HMO plans discourage use of emergency rooms, and direct their patients to take services in Emergi-centers, or Urgi-centers of managed care networks (Mezey and Lawrence 1995: 137-8, also see the second chapter of this thesis). Therefore, PCPs would like to keep patient away from use of emergency rooms because it will increase the health care expenditure. Each managed care plan developed their own definition of emergency condition to control emergency room utilization. Ken (PCP) reads his group's definition of the emergency conditions.

There is a definition. An emergency medical condition is defined as a medical condition manifesting itself by acute symptoms of sufficiency that the absence of immediate medical attention could reasonably be expected to resolve in place, the health of individual and serious jeopardy, serious impairment of bodily functions, or serious dysfunction of any bodily organ part.

Ken also explained how the statement explicitly defines the distinction between emergency and non emergency condition of the body.

So, it is obviously something that presents what symptoms they have. If you do not take care of it right now, something bad happens. If you come in with a cold, and I do not take care of it, probably nothing bad is going to happen right away. Therefore, insurance companies would not pay for that.

Patients often do not understand the boundary of the treatment between a PCP and a specialist because provided services in ambulatory care are not explicitly defined (Mezey and Lawrence 1995:138). Sometimes the ambiguity in the boundary frustrates patients because the power to treat patients is always resituated by a discourse between PCPs' and specialists. Ken (PCP) elaborates on the nature of this problem.

One of the tricky parts in managed care is that, for instance, patients who go to a hospital with minor injuries, such as an injured limb, this happened recently, the patient cracked a bone in the hand. Doctors in the emergency room, referred the patient to an orthopedic doctor. Because I am able to take care of cracked bones when patients called me to refer to an orthopedist from the emergency room, I told them that I was able to take care of them. If they are already in a specialist's office they get upset. Usually, this is rare in occurrence.

Ken argues that the *ideal* treatment is taking care of his patient without using specialists because it will save health care expenditure.

Mike (PCP) defines the boundary between care of PCPs and EMPs with the term, "true emergency." In other words, he defined a patient's body condition as a true emergency and a non-true emergency condition.

If it is "a true emergency", specialists can take care of it immediately without the primary care doctor. The patient just goes straight to the emergency room. And in the emergency department at a hospital, there is an emergency doctor who can direct them to a specialist. It would be covered by insurance if it were an emergency. But 70% of people who go to an emergency room do not have an emergency.

Although Mike argues that the vast majority of patients that land in emergency rooms do not need to be taken care of by an EMPs, Mezey and Lawrence (1995) argue that most patient cannot define the difference among nonurgent, urgent, and emergent because the definition is professionally defined (Mezey and Lawrence 1995:136). Mike also made the following analysis in his view of American people's characteristics to use the emergency room use.

They [patients] just want something immediately. In the US, everybody wants immediate satisfaction. They want immediate care. They do not want to wait for a few hours or a day or two. So they might go to an emergency room, just because they do not want to wait until tomorrow. And very many times, more than half of them do not need to be in an emergency room. It is a problem. Now patients are learning that they cannot do that. They go to the emergency room, they are seen by the emergency doctor who says since it is not an emergency, you need to go back to your primary care doctor. And people get mad. They want to be treated, they do not want to wait until tomorrow.

Mezey and Lawrence agree with Mike's view of patients' tendency to use emergency rooms. They argue that most patients go to emergency rooms regardless if they need emergency care or not, irrespective of how professionals define the emergency condition of the patients' body (Mezey and Lawrence 1995:444, also see the second chapter of this thesis).

EMPs have less legitimacy in their treatment because their practice is partly directed by government regulation, of the EMTALA, or Cobra law (See chapter two). The law states that an EMP has to conduct a health screening no matter who the person that comes into an emergency room might be. No matter how an EMP repairs a patient's body parts, a minimum amount of reimbursement is paid by HMOs. Chris spoke about the law.

... there are certain laws in the country that say if you come to a hospital, and ask for emergency care, that you have to be what is called medical screening to rule out and make sure that there is not something called "an emergency medical condition." An emergency medical condition is defined as a part of the law. So, every patient, that comes to the emergency room, has to have that screening done, which rules out an emergency medical condition. And if you do not do that, the doctor and the hospital can be fined lots of money by the government.

However, if the treatment expenditure is increased, insurance organizations do not fully reimburse the cost, then patients have to pay the rest of the expenditure. Therefore, an EMP has to negotiate the coverage of treatment with the patients' PCP, who is contracted by an insurance company, whenever a patient comes into an emergency room.

Mark spoke about the process necessary to the negotiation of treatment with PCPs.

When the patient first come into the emergency room, they write down what their insurance is. The insurance company's strategy, to save money, is to keep their patient out of the emergency room. So what an insurance company says is that "if we do not approve each time that the patient comes to the emergency room, we will not pay you for it." So unless physicians want to take care of the patient for free, physicians have to call the insurance company every time one of their patients comes to the emergency room, and say "I have your patient here Ms. Smith, she has cut her arm and needs to be sewed up. Can I do that? Do I have your permission?" So here in Corvallis, about 80% of our population has medical insurance of one kind or another. Most of those are HMOs, meaning that most of the patients come to the emergency room, and physicians have to call their insurance company and get an approval to treat them. If they do not make that call they do not get paid for treating the patients. You cannot ignore the insurance companies.

Most of the time, the treatment by an EMP is agreed upon with PCPs, but sometimes they do not agree with the treatment because the PCPs determine that they are able to treat the patient, and would like to take over the patient from the EMP. If they do, patients have to go to the PCP's clinic. Chris describes an example of discourse between

an EMP and PCPs, and illustrates that the difficulty is constituted by the different interest between the law and the insurance companies' principle.

For example, someone like yourself comes in, and they are healthy, but they are having some chest pain. Well, in order to do an adequate medical screening, and be absolutely certain that this chest pain is not a heart attack, or it is nothing worrisome, then you have to do a lot of tests. You know, it is hard to answer that question. It is not easy. You might have to do blood test, you might have to do an electric cardio gram, you might to do a chest X-ray. You might have to spend an hour to decide whether some chest pain that you might have is something serious or decide that it is not nothing to worry about; just a sore muscle or something. Well, when you come to an emergency room without that problem, it would be the same thing. You might call the doctor, and he would say " Well, I know Kensuke, you know, he is a healthy guy, if he is having some chest pain I am sure that it is not anything to worry about. Send him over to my office." Well, I could not do that because I have to use the same sets of testing, and the same set of criteria to decide whether this is serious or not. And I would do this for any other patient. So there is a fundamental conflict between those two competing kinds of principles and forces there. And the patient and emergency doctor are kind of right in the middle. So you are always trying to balance out those two competing forces to make sure that you do an adequate medical screening and make sure that you do not spend a lot of money in the test, which your insurance company might not want to pay for. So, it is pretty difficult.

Enforcement of cost containment is not only constituted by insurance organizations, but also the contractor (employer) of the EMP's, or grouped health care provider organizations. Richard spoke about the problem.

Right now, we have a letter posted in our office from the head of a Clinic, which is affiliated with our medical group, and it says that our group [the emergency department] is ordering too many tests before we make the call to get the authorization. It says only for the most serious emergency should you do that, or they will not authorize the reimbursement to HMOs. That is a way in which the insurance company is impacting us. But, I do not think the test is excessive, and it is necessary.

From an EMPs' perspective it is irrational to expand the treatment period, and especially if they are stressed about sending patients away from the emergency room without treatment. This is because the EMP's conception of rational treatment is not

associated with the technocratic principle, or enhancement of productivity. The rational, or *preferred* treatment, is to fix a patient's problem within a short period of time. The EMPs argue that it is inhumane to send a patient back to their PCPs without treatment.

Richard depicts the difference in context of rationality between ERs and PCPs.

... we have a doctor that may or may not be competent. You felt it was important to be seen tonight, and you can go to do that as opposed to calling somebody else and having them tell you "No, that is not as important as you think. Wait until tomorrow." What would you do the rest of the night? You worry. Then, make the call to get authorization, and then, based on what the doctor says at some other end, go back to the patient and say "Well, like I told you before, I think you need this, they say you do not need to get treatment until tomorrow. I think you do. ... I won't feel very comfortable without taking care of you now. What do you think?" It is terrible that people are put in that position. So, I say leave and hope that they will not suffer from the consequence. They say "I do not get health care that way, right?" If they stay, and get what we think, then they get a bill. The insurance company does not pay for it. You know, it is like hell.

In addition, EMPs are frustrated about obtaining permission of treatment from PCPs because this procedure takes away an EMP's authority. In other words the judgment of an EMP's diagnosis of the patient who is in front of them, is partially approved by a physician who has not seen the patient yet. "... it is terrible because he was not authorized to see a doctor or any one else who had not seen the patient yet. All they do is make a phone call. To me that is wrong."

Although managed care plans put pressure upon the EMPs to follow their cost containment principle through PCPs contracted with managed care plan network, or health provider organizations where EMPs work for, still give EMPs autonomous power in their medical decision. John explained that the autonomous power in an EMP's medical

judgment remains because a lot of major hospitals in the region provide free care for emergency room treatment.

## Conclusion

Differing conceptions of *rational* treatment in different specialization of biomedicine have emerged as managed care plans, and their network services have expanded. My empirical study of physicians in the primary care and the emergency arena displayed distinctive semantic meanings in *rational treatment*: technocratically formulated *ideal treatment* and physicians' intuitively conceived *preferred treatment*.

Cost becomes a symbolic element among managed care plan networks to achieve high quality treatment of contracted physicians, and physicians' quality of performances are monitored by technocrats, or their contracting insurance organizations. PCPs' treatments are strongly influenced by productivity guidelines of technocracy. For instance, PCPs' *ideal treatment* lies upon caring for a large number of patients everyday without patients' referral to cost consuming care of specialists, including EMPs, and hospital administrations. Many PCPs cannot spend enough time with each patient, and therefore, are unable to take into account patients' emotional experiences of their illness. PCPs are paid a contractual fee from insurance organizations in exchange for unlimited care of a fixed numbers of patients a day. If PCPs refer specialists or administer patients to hospitals, insurance organizations have to disburse extra expenditure for the contractual fee of the patient. The special care creates extra health care expenditures of their contractors, and it decreases capital revenue of the technocrats.



PCPs usually treat the normal conditions of the body, and they refer abnormal bodies to specialists. The prime mission of PCPs are prevention of chronic diseases, and to maintain patients' body at a healthy condition. This in turn will save health care expenditure, such as specialists' care. Consequently, clinics in a managed care network have played the role of a manufacturing factory, and the bodies of patients are conceptualized as if being placed on an assembly line. PCPs become the manual labors on a production line for the health care industry. They repair and diagnose the patient body as efficiently as possible just as through they were on a factory conveyor-belt.

Power formulates a physician's rational treatment, and it is often symbolically constituted by proof or evidence of efficiency of physicians' performances in an implemented scientific discourse, or biomedical discourse, of managed care network formulated by technocrats (such as consumer and provider organizations with insurance organizations' intermediates). As I argued in the first chapter of this thesis, scientific discourse (in which power is originally formulated by a proof or evidence to legitimate transformation of scientific knowledge) is reinterpreted by technocrats in American biomedicine, and technocrats began to use proof to identify a rationality or enhancement of productivity, minimizing input and enhancement of output (to increase capital gain). For instance, the proof, such as maximum numbers of patients which PCPs treated a day, is employed by technocrats to illustrate economic efficiency of physicians' performance, in managed care networks. Consequently, scientific discourse is implemented by technocrats to interpret the information of the patient's condition explicitly to reconstruct the information for the sake of health care industries' capital gain.

On the other hand, different preferences in treatment between PCPs and EMPs are formulated by the varying impacts of the power of technocrats upon them. In contrast with PCPs' *ideal treatment*, EMPs' *preferred treatments* are less associated with cost incentive epistemology constituted in technocracy because EMPs' autonomous treatment is partly protected by government regulation, the Emergency Medical Treatment and Active Labor Act (EMTALA). EMP's treatment is a combination of art and science, or a combination of intuitive and scientific knowledge. They have mastered scientific knowledge, such as bacteriology, immunology, and other natural sciences, through a scientific discourse in their medical school education. However, EMPs imply scientific knowledge in their daily practice, and they are required to have artistic, hermeneutic, or intuitive knowledge which instantly formulate the best possible treatment. The intuitive knowledge is developed through their experience. Thus, EMPs' treatment has to rely more upon intuitive knowledge than those of PCPs. In addition, an EMPs' diagnosis and treatment relies heavily upon the physical conditions of the patient, and the emotional effects on the condition of the body is excluded from the diagnosis and treatment. This is because EMPs have to treat acute conditions of the patients' body within a limited amount of time. Therefore, they do not have time to involve patients' emotional condition, and even have to be able to prioritize the treatment from the most life threatening problem to the least.

The distinctive conception of the ideal treatment between PCPs and EMPs are constituted by the nature of their treatment as well as the principle of technocracy. Along with the expansion of the technocrats' power in the clinical decision making in the US, the

EMP's *ideal* treatment sometimes cannot be completed. Sometimes, technocrats contracting PCPs take over care of the patient from the emergency room because it will save on cost as opposed to the high cost incurred by the patient remaining in the emergency rooms. However, it is frustrating for EMPs not to complete their *ideal treatment*, relying instead on repairing the malfunctioning patient's body instantaneously.

## CONCLUSIONS

THROUGHOUT MY THESIS, I attempt to illustrate how science and technocracy formulate distinct meanings in American biomedicine. I especially focus upon illustrating symbolic meanings of the *rational treatment* constituted in discourses of Primary Care Physicians (PCPs) and Emergency Medicine Practitioners (EMPs). This is because technocratic concepts such as quality control, have been gradually implemented in managed care plans to restrain increasing health care cost in the American health care industry. Managed care plans restrict PCPs and EMPs because clinics and emergency rooms are the first places, or gates, where patients come to express their experience of illness, and technocrats (such as health care organizations constituting managed care networks) attempt to monitor the gate of biomedicine to reduce health care expenditure. An increased number of physicians work in managed care plan networks, and PCPs play a significant role in controlling a patients' treatment, such as the patients' referral to other specialists (including EMPs) and hospitals. Even though both PCPs and EMPs are in charge of referring patients to specialists and other services, they have distinct impacts on managed care plans. Therefore, studies of PCPs and EMPs illustrated their distinctive view of current American biomedicine. I interviewed six PCPs and four EMPs who work for large regional grouped health provider organizations in Oregon in 1996.

Managed care plans are increasingly formulated by insurance organizations, and the network services are designed to deliver from provider organizations to consumer organizations. Managed care plans have expanded after the 1980s, and they increasingly

take enrollees from Fee for Service (FFS), or indemnity health plans. Fee for Service, or indemnity plans, are another form of insurance system, and the delivered services are reimbursed by insurance organizations according to a fee which is customarily established by physicians. Managed care plans were developed to control health care expenditure by monitoring the physicians' performance in their networks. This is because health expenditure has increased along with the development of biomedical science and technology since the mid nineteenth century. Therefore, the biggest consumer of health care, the US government, has intervened to control health care expenditure since 1970s, and it has resituated the health delivery system.

Technocrats increasingly use a scientific discourse in order to improve productivity as well as to reduce the costs of delivering services. Lyotard (1993[1979]) argues scientific discourse develops legitimacy between the sender and addressee of scientific knowledge in the knowledge transformations process. Transformation is not completed unless the addressee is able to reproduce the knowledge exactly as it was produced by the sender with proof. Because of the legitimacy, there is a limitation to what scientific knowledge is able to cover. For instance, intuitive knowledge cannot be reproduced by an addressee as sender of the knowledge that is produced (Lyotard 1993[1979]:3). Gordon (1988) argues that scientific knowledge is falsely created because many scientific experiments are conducted in artificial settings, for instance, medical experiments hypothesize a uniformed image of the average man to identify efficiencies of medication, but in the reality of a clinical setting, there is no average man (Gordon 1988:32).

Power is formulated by proof in scientific discourse, the proof shows the reality that rationality can enhance productivity. Kawai (1982) argues that scientific discourse is a product of Western epistemology, and the truth dominates the center of epistemology with proof. The dialectic is constituted to identify the truth, and creates an absolute world view. The dialectic logic (which is known as Cartesian dualism) is likely to be dogmatic, and force to dominate the center of logical structures; this relegates the opposing power to a marginal realm of the world (Kawai 1982:52). However, in the construction process of biomedical proof, the emotional condition of a patient is disregarded. Kramayer (1986) shows that the treatment of the body relies heavily upon physiological and biological factors, or disease, but metaphysical and sociocultural components of illness are neglected (Kramayer 1988:60). Lock and Sheper-Hughes (1990) argue that this objectification of the body, or mind/body dichotomous conception, in biomedicine is distinct in Western epistemology. Only quantifiable common proofs, such as the latest scientific as well as physiological data reports of biomedicine, are shared in the process to constitute an *ideal treatment*. As a case in point, the power of *ideal treatment* is created, or proved, by set of established document, or a productivity guideline formulated by technocrats. The power manipulates PCPs' practices to improve the capital gain of technocrats. The goal of scientific discourse among technocrats is no longer the identification of a universal truth, it is the enhancement of productivity, or producing the best input/output equation. *Force* and *risk* are utilized by the language game of technocracy (Lyotard 1993[1979]:44). For instance, *force* is the financial incentive in a managed care plan network, and PCPs have to agree with that principle. *Force* is used to eliminate *risk*, and *risk* is increased

health care expenditures by physicians' irrational treatments. *Force* efficiently expels opposing players in the game, such as individual physicians who are not participating in managed care networks.

Lyotard (1993[1979]) argues that once reality is constructed by proof in technocracy, an individual's mode of conduct is controlled by reality. In other words, once the *ideal treatment* is formulated, PCPs are directed to follow the treatment (Shelesiger, Gray, and Perreira 1997 108-109). In a reinterpreted scientific discourse by technocrats, individual desire, such as individual physicians' *preferred treatment*, or metaphysical discourse based upon intuitive knowledge, is perceived as an obstacle which reduces the efficiency of the entire system (Lyotard 1993[1979]:55).

Managed care plans emphasize preventive care because it is incorporated with technocratic principle of quality control. Technocrats direct PCPs to view the body of patients as a commodity. In other words, individual health is symbolically perceived as being possessed and retailed in a market, and individual people become the owners of a healthy body (Martin 1996:105). The patient's body is conceived as a machine produced on a health care industry's production line. It is brought to a health care factory for repair and diagnosis. PCPs in a managed care plan are hired as manual laborers to maintain their patients' body in a healthy condition and to investigate the malfunctioning parts of the body. PCPs quantify the physiological data for computer storage. Technocrats monitor the efficiency to produce healthy bodies through the quantified and stored information of the patients' body in computer databases. The patient's body is totally detached from the mind, and the body is objectified.

Consequently, the PCPs' identity has been fragmented by science and technocratic hegemony in biomedical epistemology in American biomedicine. In particular, the PCPs' autonomous power in clinical decision making has been taken away by peer reviewing of their practices as well as standardized guidelines formulated by technocrats. Elinstein (1976:696) argues that physicians' clinical decision making is a significant part of the biomedical practice, and this practice constitutes a symbolic meaning in the physician's identity. In contrast to PCPs, EMPs' autonomous power in clinical decision making still remain. Many parts of the EMPs' practice rely upon intuitive knowledge. Intuitive knowledge is incorporated with values and aims, and the knowledge formulates an artful sense, or hermeneutic capability (Lyotard 1993[1979]:14).

EMPs also agree with Foucault's argument (Foucault 1973:13), that they perceive the body as a map where a disease might be located. Throughout the course of my interviews with EMPs, some of them illustrate this objectification process in their practice. Since the body in the emergency room is in acute condition, the repair order is prioritized according to the seriousness of the various maladies of the body. The maladies are prioritized from the most life-threatening to the least threatening. On the other hand, my ethnographic study shows that there are two distinctive meanings of *rational treatment* in conflict with each other in the EMPs' mind; the symbolic meaning of the EMPs' treatment is to repair malfunctioning body parts, as needed by their patients, within a minimum amount of time. In other words, time has been constructed as a symbolic component in order to pursue their *preferred treatment* because the patient's body normally requires instantaneous treatment. This preferred treatment is mainly formulated by their intuitive



knowledge, and is developed through their experience. The completion of treatment means completing this intuitively conceptualized biomedical practice. However, *ideal treatment* has been increasingly formulated in managed care plan networks by technocrats. PCPs are given the responsibility to agree with the ideal treatment. The newly conceptualized ideal treatment, which is based upon cost containment, prioritizes health care expenditure at very low levels and improve the productivity of technocrats as a whole. Time is not a primary component in the completion of some treatments. Consequently, EMPs are sometimes directed not to accomplish their preferred treatment. Occasionally, to decrease cost in treatment, EMPs are required to send their patient back to PCPs. The EMPs' meaning and power to treat patients have been gradually affected by the cost containment principle of technocrats. In other words, the EMPs' ability to pursue their preferred biomedical treatment has been situated and resituated through time and space, according to technocratic conceptions of rationality and productivity which are formulated by the power of scientific discourse implemented into biomedical discourse in the managed care era.

My research is aimed at making a critique of science and technocracy, especially their hegemony of meaning in American biomedicine. Theoretically, I agree with Lyotard's argument that any attempts of complete control over a social system will lower the performance rate even though the ideology is aiming to improve it, and it leads to asphyxiate the operation of production (Lyotard 1993[1979]:55). Therefore, I assume that managed care systems would asphyxiate their efficiency if technocrats conceive that they are able to control the entire biomedical discourse by only utilizing scientific

discourse because it does not take into account patients' emotional experience of illness as well as physicians' intuitive knowledge.

My research contributes a disclosure of hidden meanings of health in the US which are formulated by a scientific discourse within technocracy. It reconstructs stereotypical physicians' images, which were often negatively formulated by many anthropologists in the past. I have also made an effective critique of the invasion of the scientific mode of thought in American biomedicine. However, questions remain: Is there a way to evaluate the efficiency of the intuitive knowledge utilized in physicians' practices? How is biomedicine effectively able to take into account a patient's emotional experience of their illness? Is it possible to reformulate postmodern scientific discourse to make it more effective in carrying various kinds of health related knowledge and meanings? If so, how would ordinary and poetic discourse be used to reinterpret scientific discourse?

I have heavily relied upon illustration for my contextual analysis rather than quantified data analysis in order to create diverse interpretations of my description of American biomedicine. In other words, I attempt to eliminate my authority to organize data, or exclude *force* created by my projection, to my readers. In addition, I would like to emphasize that my argument does not intend to formulate any hierarchical relationships between material structure of a society and people's minds, such as political and economical functions and the biomedical meanings of physicians' practice. My illustration, rather, focuses upon the relationship between scientific discourse and people's created meanings in discourse. However, it is possible that a reader of this thesis would project the hegemony of managed care system from my description. This is because texts

always project false consciousness (Ricoeur 1981), therefore contradiction could occur between my intention and the reader's projected meaning of this text.

The most difficult part of my research was that many biomedical arenas of anthropological study heavily focus upon health politics and economics but not on the meaning of health, especially among physicians. In addition, there was a very limited numbers of ethnographic data of physicians discourse. I would like to propose that it is necessary to conduct further ethnographic study of physicians to identify implicit meanings of health among physicians and other health care professionals. It will lead to the formulation of specific theories that take into account of the complexity of meanings and epistemologies within biomedicine. These studies would illustrate the significant nature of the transformation of American biomedicine from the treatment of infectious disease to the prevention of chronic disease.

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